specifications and instructions to bidders may be examined at the Department of the Interior, Office of Indian Affairs, Washington; the U. S. Indian warehouses at Chicago, Ill., St. Louis, Mo., and Omaha, Neb.; the Builders' and Traders' Exchanges at St. Paul and Minneapolis, Minn.; the Northwestern Manufacturers' Association, St. Paul, Minn., and the Superintendent of the Uintah and Ouray Agency, Whiterocks. F. H. Abbott is Acting Comr.

QUEBEC, QUE.—Contract for removing the debris in connection with the Quebec bridge has been awarded to CAPT. CHARLES ROENIG, of Quebec. Work is to be completed by May 1.

TORONTO, ONT.—Bids are asked by Jos. Oliver, Mayor and Chn. Bd. of Control, until noon, Jan. 18, for timber piles and driving same for the bridge on the extension of Wilton Ave. over the River Don.

OUTLOOK, SASK.—Bids are asked until noon, Jan. 22, by the Chief Engineer of the Canadian Pacific Ry. at Winnipeg, Man., for the construction of a steel bridge across the river at Outlook.

BUILDINGS.

(denotes that this work is advertised in Engineering News.)*

BRATTLEBORO, VT.—The equipment of the Brattleboro Retreat is to be increased the coming year by the building of a $50,000 gymnasium and nurses' dormitory. All of the stone used in the construction, as well as all of the rough lumber, will come from the Retreat property. The building will be 120 × 102 ft. on the ground and 2½ stories in height above the daylight basement. It will be erected on the lawn in front of the administration building, facing Linden St. and set back sufficiently not to obstruct the view from the entrance of the main building. The first story of the building will be constructed of mountain stone, and above that the exterior will be of shingle finish. The second story will overhang the first on the front, thus making a veranda 14 ft. in width and 63 ft. in length. The main entrance will be in the center of the building, and will open directly from the veranda to the gymnasium and ball room. From either end of the veranda, entrance will be had to the sun parlors for women and men. The north half of the building will be devoted to women and the south half to male patients. The dimensions of the gymnasium and ball room will be 39 × 63 ft. and a stage 24 × 12 ft. will be constructed at the east side of the room. In the basement a swimming tank, 26 × 44 ft., will occupy the center of the building. The tank will have a graduated depth ranging from three to seven feet. John C. Pellett, of Brattleboro, will have charge of the construction of the building, and work will begin at once.

SPRINGFIELD, MASS.—The Fire Commissioners held a meeting on Jan. 7 and formally approved of the plans for the fire headquarters building on Dwight St., and the sub-station on Margaret St., prepared by B. Hammett Seabury, Arch., 21 Besse Bldg., Springfield. The Commissioners have decided to go ahead with the construction as soon as possible and they will advertise for bids about Jan. 15. It is expected that the proposals will be opened and the contract awarded about 30 days after the first advertisement. The appropriation for the two buildings is $110,000 and another appropriation of $30,000 will provide for the fire alarm telegraph system, work on which has already been begun. The fire alarm system will be ready for installation as soon as the building is completed, and that the whole establishment would be ready for service by Jan. 1, 1911. The building on the Dwight St. site will be disposed of soon. Samuel L. Wheeler is Supt. of Fire Alarm Telegraph.

NEW HAVEN, CONN.—The gift of $650,000 to Yale University by Mrs. Russell Sage has made possibel various building changes planned by the University. It is announced at the University that the construction of two new buildings will be begun immediately. The University Laboratory in Physics, to cost $450,000, which was recently given by H. D. and W. J. Sloane, of New York, will be the first structure placed on the tract of land, and a new Biological Laboratory, to cost about $200,000, will be the second. On the tract will be placed the new buildings planned for the School of Forestry also. Another plan which has been discussed is that of removing the entire Theological School from its present site in Elm St., adjoining the old Yale quadrangle, and placing it in new buildings in the Sage tract, turning the present buildings of the theological school into dormitories of the academic department.

STORRS (Eagleville post-office), CONN.—The time for receiving bids for four cottages and a dining hall at the Connecticut Agricultural College, Storrs, has been extended from Jan. 15 to 10 a. m., Feb. 1. Plans for the cottages may be obtained of C. H. Preston, Arch., Norwich, and for the dining hall from Charles S. Palmer, Arch., Meriden, Conn. Charles M. Jarvis, Berlin, Conn., is Chn. of the Com.

WESTFIELD, N. Y.—We are officially advised that the DUROLITHIC CO., 460 Ellicott Sq., Buffalo, have been awarded a contract for complete construction of a store and office building, five stories high, for Dr. C. E. Welch, at intersection of Main and Portage Sts., Westfield, N. Y. Construction is to be of reinforced concrete, with street fronts of cut stone, pressed brick, plate glass and prism, interior finished with marble, tile and oak. There will be wrought-iron stairs, power plant for light, heat and elevator service. The assembly hall on top floor to be elaborately decorated with composition ornament.

NEW YORK, N. Y.—We are officially advised that plans have been filed with R. P. Miller, Bldg. Supt., Boro. of Manhattan, for a 10-story apartment house to be built for the Dacom Realty Co. from designs by Geo. & Edward Blum, 506 Fifth Ave., Archs., at the southeast corner of Riverside Drive and 145th St. It is to be of brick trimmed with limestone and terra cotta, with a frontage of 100 ft. and a depth of 110 ft., and will cost $700,000. Contracts will be let soon.

Plans have also been filed for a 12-story apartment house to be built from designs by Neville & Bagge, Archs., 217 West 125th St., for the Guide Realty Co., Arlington C. Hall, Pres., at West End Ave. and 99th St. It is to contain 61 suites of apartments. It will cost $800,000.

Plans have also been filed for a 6-story apartment house to contain 31 suites, and to be erected for the Tuscan Construction Co., from designs by Neville & Bagge, Archs., 217 West 125th St., at a cost of $150,000, on Claremont Ave., above 122d St., and just north of the new Union Theological Seminary buildings.

Plans for a 12-story loft and store building, with 33.4 ft. front and 85 ft. deep, to be built at a cost of $200,000, have been filed by Schwartz & Gross, 347 Fifth Ave., Archs., for the Twenty West Seventeenth Street Construction Co., as owner, at the location specified.

An 8-story apartment house, with suites for 41 families, to be built at 536 and 538 West 11th St., from designs by Mulliken & Moeller, Archs., 103 Park Ave., for the Riverside Drive Viaduct Realty Co., Joseph Newmark Pres. It is to be of brick, trimmed with limestone and terra cotta, having a frontage of 83.4 ft. and a depth of 83.10 ft. It will cost $225,000.

NEW YORK, N. Y.—Bids are asked by John W. Brannan, Pres. Bd. of Trustees, Bellevue and Allied Hospitals, until 3 p. m., Jan. 18, for all labor and material required for constructing, erecting and completing an inclosed passageway extending from the present driveway to Pavilion "B," together with an inclosed iron stairway, at the rear of the Psychopathic Pavilion, at the Bellevue Hospital, situated 26th to 29th Sts. to First Ave. to East River, Boro. of Manhattan, City of New York.

Bids are asked at the same time and place for all labor and material required for painting Wards Nos. 1, 2, 7, 8, 9, 16, 23 and 29, in main building of Bellevue Hospital, 26th St. and First Ave., New York City.

The Bankers' Trust Co., Edmund C. Converse, Pres., has acquired the site at the northwest corner of Wall and Nassau Sts., which is now occupied by the Manhattan Trust Co. building. All the structures now on the site from 10 Wall St. to Nassau St. are to be torn down and the Bankers' Trust Co. will put up a skyscraper for its own use.

Plans for a theater, to cost $500,000, have been filed with the Building Department, on West 43d St., about 100 ft. from Broadway. It will be contained in a 12-story office building, which will also have club rooms, a concert hall and a roof garden. The plans call for a building of the rococo style, with a front of Corinthian columns and allegorical figures ornamenting the arch work. The first and second floors will be taken up by the theater and the third floor will be fitted out as a concert hall. The rest of the building will be devoted to offices and clubrooms. There will be three entrances, one for the theater, one for the concert hall, and the other for the offices. A roof garden is planned for the top. The building will be of iron and steel framework, with stone facing up to the third floor, where terra cotta and fancy brick facing will begin. It is planned to give the theater a foyer and interior decorations and a thoroughly modern equipment. It will seat 1,200, and the concert hall will seat as many more. Carl Ambrosius, 5 East 14th St., is Arch.

D. H. Burnham & Co., Archs., Railway Exchange Building, Chicago, Ill., have filed new plans for the hotel which Charles E. Rector proposes to erect at the southeast corner of Broadway and 44th St., replacing his restaurant and cafe. The new building will be 13 stories high, instead of twelve as at first projected, and will cost $1,400,000, an increase of $400,000 in cost over that estimated for the 12-story edifice, changing the height from 175 to 200 ft. The construction contract has been awarded to the THOMPSON-STARRETT CO., 49 Wall St., New York.

NEW YORK, N. Y.—Bids were received as follows on Jan. 10 by C. B. J. Snyder, Supt. School Bldgs., Dept. of Education, for the general construction, etc., of additions to and alterations in Public School No. 58, on the southerly side of Grafton Ave., between Walker Ave. and Clinton Pl., Woodhaven, Boro. of Queens: George Hilderbrand, 38 Park Row, New York, $196,400; John Kennedy & Co., 103 Park Ave., New York, $201,600; P. J. Brennan & Son, 624 Madison Ave., New York, $191,400; W. J. Moran, $195,297; H. C. Stowe Construction Co., 221 Greenpoint Ave., Brooklyn, $193,300; Thomas McKeown, 103 Park Ave., New York, $191,437; James Auer & Son, 648 Lexington Ave., Brooklyn, $210,959; Patrick Sullivan, 230 Grand St., New York, $193,270; George F. Driscoll, 548 Union St., Brooklyn, $197,669; John F. Cockerill, Inc., $198,900; Charles H. Peckworth, 415 Hudson St., New York, $193,870; Peter Cleary, 115 Marion St., Brooklyn, $190,000; J. F. Walsh Construction Co., 1 Madison Ave., New York, $189,000; James McArthur, 22 Ormond Pl., Brooklyn, $183,000.

ALBANY, N. Y.—The International Harvester Co., 234 Michigan Ave., Chicago, Ill., will begin the erection soon of a 4-story reinforced-concrete fireproof warehouse, 90 × 100 ft., at Broadway and Tivoli St. Figures will be taken about April 1. M. E. McCullough, 40 Beaver St., Albany, is in charge. Estimated cost, $50,000.

CENTRAL ISLIP, N. Y.—Bids were received on Dec. 22 by the State Commission in Lunacy for the construction of six cottages for chronic patients at the State Hospital at Central Islip, N. Y., and the contract has been let to R. T. FORD, 206 South Ave., Rochester, N. Y., at $278,000. A complete list of bids was given on Dec. 30.

RIVERHEAD (L. I.), N. Y.—The Suffolk County Board of Supervisors has voted to let the contract for the steel and stone jail to be built here to the VAN DORN IRON WORKS, 2685 East 79th St., Cleveland, Ohio. The bid of the successful bidder was $209,278. Besides this the architect, William J. Beardsley, of Poughkeepsie, N. Y., who designed the prison, gets 5%. It is believed that before the jail construction is completed it will have cost the county nearly $250,000, or $125,000 more than was first designed to spend.

NEWARK, N. Y.—A permit has been granted to the Wiss Realty Co. for the 10-story building to be erected at 665 and 667 Broad St. The building will front on Broad St. 57 ft., with a depth of 100 ft. and will rise 120 ft. above the sidewalk. It will be built of brick, stone and concrete and will cost $150,000.

TRENTON, N. J.—Bids were received as follows on Jan. 6, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of an additional story to the post-office building at Trenton, N. J.: William H. Fissell & Co., 1133 Broadway, N. Y., $44,700; M. P. Wells, Philadelphia, $38,900; Westchester Engineering Co., New York, $51,300; Hynd Bros., 30 Church St., New York, $49,616; J. E. & A. L. Pennock, Philadelphia, $41,848.

LONG BRANCH, N. J.—Among the proposals before the City Council for 1910 is the plan to lease the City Park as a playground to a body of capitalists, who have planned to expend $1,000,000 for a double-deck pier, extending 850 ft. to sea; a convention hall, seating 10,000 persons; a theater and swimming pool, besides a 400-room hotel. All but the hotel are to be built on the city property. The hotel will be erected on the United States Hotel land, which has been purchased. The principal stockholders of the new company are James C. Ewing and W. S. Mason, of Pittsburg, Pa., and Francis C. Baird, of Spring Lake. The company offers the city $3,000 annually for two years, with 5% of the gross receipts the next eight years and 10% of the gross receipts for the other ten years. It agrees to purchase the park for $200,000 any time within the life of the franchise.

PITTSBURG, PA.—Bids are asked until noon, Jan. 18, by the Adjutant-General of Pennsylvania, Harrisburg, Pa., for the erection and completion of an armory to be erected at Pittsburg, Allegheny County, Pa., from plans and specifications of The W. G. Wilkins Co., Archs., Westinghouse Bldg., Pittsburg, Pa. Noted fully on Dec. 23.

The County Commissioners and the County Controller on Dec. 22 received bids for the completion of the Soldiers' Memorial Hall Building, which had originally been contracted for by P. W. Finn, who failed recently. Work on the structure was halted by the failure. We are officially advised that the following bids were received: A. & S. Wilson Co., 541 Third Ave., $289,663; JAMES L. STUART, 341 Sixth Ave., $260,953 (awarded contract); W. F. Trimble Sons Co., 1719 Greenwood Ave., $309,400; Henry Shenk Co., Lewis Block, $308,710. All bidders are of Pittsburg.

PHILADELPHIA, PA.—Bids are asked until 11 a. m., Jan. 31, by Col. F. L. Denny, Q. M., U. S. Marine Corps, Washington, D. C., for the erection and completion of an extension to the Marine Barracks, Navy Yard, Philadelphia.

The Philadelphia & Reading Ry. Co. will ask estimates soon on the 5-story office building, 50 × 250 ft., it intends building at Ninth and Spring Garden Sts., and on the new Columbia Ave. Station. The first will cost about $250,000 and the second about $75,000. William Hunter, Philadelphia, is Ch. Engr.

Contracts have been let by the Philadelphia & Reading Ry. Co. for the stations at Tioga and Nicetown, the former to F. A. HAVENS & CO., Perry Bldg., for $54,000, and the latter E. L. SEEDS for $40,000. William Hunter is Ch. Engr., Philadelphia.

Title has been taken by William R. Bricker from Mary M. Parke to the tract, 195 × 95.2 ft., at the northwest corner of 40th St. and Walnut St., for a nominal sum and a mortgage of $15,000. The property, which is assessed at $15,000, has been purchased as a site for a group of flat buildings to be erected by C. R. Siegel, Locust and Melville Sts., at a cost of about $100,000.

Permits have been obtained by Stanley B. Smullen for 18 3-story houses, each 19.10 × 51 ft., to be built from 7131 to 7143 and from 7201 to 7219 Cresheim Road, Germantown, for Bamberger Bros. & Co., 606 Chestnut St., at a cost of $153,000. Sauer & Hahn, 1112 Chestnut St., are Archs.

Plans are being completed for the erection of the proposed Roman Catholic Church of the Holy Child, at the northwest corner of Broad and Duncannon Sts., which is the gift of Bernard Corr as a memorial to his son and brother. The commission to prepare has been given to Edwin F. Durang & Son, Archs., 1200 Chestnut St., who will be ready for bids Feb. 15. The building, which will be situated on a lot bought from the Dickey Estate by P. F. Kernan for $45,000, will be of stone in the Romanesque style of architecture. It will measure 70 × 145 ft. and will cost $150,000. Later a rectory and parochial school will be built.

PHILADELPHIA, PA.—See item under Streets and Roads.

WHITEDEER, PA.—The Philadelphia & Reading Ry. Co. has awarded contract for a passenger and freight station at Whitedeer to C. E. WOODNUT & CO., of Williamsport, Pa. The plans show an ornamental 1-story brick and stone structure, with a projecting bay window on the track side. A cement platform with overhanging shelter roofs are provided. William Hunter is Ch. Engr., Philadelphia, Pa.

SOMERSET, PA.—The Baltimore & Ohio R. R. Co. has announced that it will build a passenger station at Somerset, and in addition a freight depot and adequate facilities to accommodate shippers from that point. It is said that $75,000 has been appropriated for this work and the two stations—passenger and freight—will be directly opposite each other. Five sets of track in addition to the present main track and sidings will be installed for the convenient movement of cars. A. M. Kinsman, Baltimore, Md., is Ch. Engr.

BALTIMORE, MD.—The Builders' Mortgage Security Association has purchased from the Walbrook Land Corporation eleven parcels of land in the vicinity of Tenth, Brighton and Presstman Sts., and two parcels from the same corporation on the north and south side of Presstman St., between Bloomingdale Road and Seventh St. The lots will be improved with 150 modern semi-detached cottages, the improvements costing about $350,000. The work will begin immediately and they are expected to be finished by spring. The purchasers were represented by Herman Scherr, Treas. of the Association.

Plans for alterations and additions to the present buildings on the Blind Asylum property on North Ave. for the new Polytechnic Institute, which will involve the expenditure of about $300,000 more than the $450,000 already set aside for the use of this school, were adopted by a majority of the members of the School Board on Dec. 30 at a conference with the Architectural Commission. Josias Pennington, Professional Bldg., Baltimore, is Arch.

WASHINGTON, D. C.—We are officially advised that the District National Bank invited competitive plans recently from eight architects for its proposed 9-story bank building to be erected in G St. Milburn, Heister & Co., Home Life Bldg., Washington, Archs., were the successful competitors. They have been instructed to prepare the plans and specifications, and same will be done as soon as possible. Cost, $150,000.

LOUISVILLE, KY.—BAILEY & KOERNER, 31st and Market Sts., Louisville, were awarded the contract for the erection of the office building, which is to be built by the Board of Water-Works, at the meeting of the Board held Dec. 28. The building will be constructed on the property just north of the present office building on the east side of Third Ave., between Green and Walnut Sts. The bid calls for the expenditure of $53,300 and carries with it the guarantee of completion by July 1, under penalty of $25 a day, if not finished within the prescribed time. The President of the Board was authorized to carry out the recommendation made by the Chief Engineer for laying a 24-in. distributing main from Crescent Hill to Baxter and Finzer Aves. The purposes of this main will be to supply the Highlands with water in cases of breaks in the 48-in. main, and also to make a cross connection with a 20-in. pipe between the 30-in. main on Frankfort Ave. and the 48-in. main on Long Ave. Authority was given to purchase the necessary pipe and proceed with the work at the earliest possible opportunity. The new mains will probably be ready for service April 1, 1910. The approximate cost of installation of this service including the labor and material will be about $40,000. This will provide for three independent mains leading from Crescent Hill to the City, one 48-in., one 36-in. and one 24-in. main. The office building will be model in every respect and work will begin at once. It will be of brick and fireproof and two stories in height. The new structure will have a frontage of 57 ft. and will be 90 ft. in depth. The list of the firms, the time set for finishing the building and the amount of each bid follow: Bailey & Koerner, July 1, 1910, $53,306; Rommell Bros., Sept. 1, 1910, $59,985; George Rommell, Nov. 1, 1910, $57,737; Gustav Lortz, Oct. 1, 1910, $54,325; National Concrete Construction Company, June 10, 1910, $54,165; Henry Bickel Co., Aug. 1, 1910, $59,184; Alfred Struck Co., July 1, 1910, $55,000; Frey Planing Mill, bid came too late. The Board closed negotiations with the Standard Club for the lease of the ground of the Country Club and the Golf Club at the old reservoir site.

DAYTON, OHIO.—The Adam Schantz Estate, Commercial Bldg., will build a 5-story business block on Ludlow St., between Third and Fourth Sts. Plans are not yet complete and work will not be started until next spring.

The Cincinnati, Hamilton & Dayton Ry. Co., C. A. Wilson, Ch. Engr., Cincinnati, Ohio, has asked the City Council for the vacation of the streets and alleys between Webster and Fulton Sts. to make room for the freight depot to be built this year.

TOLEDO, OHIO.—James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., has awarded contract for the installation of a heating and pumping plant in the post-office building at Toledo, Ohio, to FITZPATRICK & HOEPNER, 63 E. Gay St., Columbus, Ohio, Dec 1, 1910.

NORWOOD, OHIO.—Bids are asked by John Sharman, 611 Johnston Bldg., Cincinnati, Ohio, until Feb. 1, for the erection and completion of a church with a seating capacity of 1,200 persons, church to be located on the south side of Slane Ave., between Elsmere and Floral Ave., Norwood, Ohio. George W. Kramer is Arch.

LIMA, OHIO.—Bids were received as follows on Jan. 10 by James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., for the construction of an extension to the post-office building at Lima, Ohio: Ohio Valley Construction Co., Parkersburg, W. Va., $65,000; Cecil L. Saunders, Clifton Forge, Va., $56,400; George Baker Long, Lexington, Ky., $67,480; Harmon Bros., Williamsport, Pa., $63,249; John G. Unkefer & Co., Minerva, Ohio, $60,820; M. P. Wells, Philadelphia, $55,912; William H. Fissell, New York, $64,330; James de Vault & Son, Canton, Ohio, $56,589.

ANDERSON, IND.—The Trustees of Monroe Township, Madison County, will ask for bids soon for the construction of a school building on the site of the Busch School building, recently destroyed by fire.

SOUTH BEND, IND.—Bids are asked by the Trustees of the Indiana Ave. Christian Church until Feb. 15 for the erection of a church on the site of the present building. J. D. Kuhn is Arch.

CHICAGO, ILL.—A furniture exchange building is to be built here, according to the Chicago "Record-Herald." This structure is to be the National Furniture Exchange, which will extend east from Fairbanks Court to the Lake Shore Drive, fronting 1,125 ft. on Erie St., as well as on Huron St. It will be eight stories in height, with 50 acres of floor space in the entire structure. This space is equal to about 2,500,000 sq. ft. The plans for the building have been completed and the contract for its erection is to be awarded soon. The Bowes Investment Co., 108 La Salle St., has had charge of negotiations for the purchasing of ground for the new building, this being taken from the Newberry Library and Gen. W. C. Newberry. The structure was designed by Samuel N. Crowen, Arch., 106 La Salle St., who will superintend its erection.

A hotel, containing 1,000 rooms, is to be erected in Streeterville, it is stated. Plans have been completed and that contracts will be let within 60 days. Construction work may begin May 1. Henry B. Mason, Title & Trust Bldg., is the local representative of a syndicate which is said to be financing the project. There will be also an Italian garden and a casino connected with an exhibition building. The whole group when completed will represent an expenditure of $6,000,000, while the hotel itself will cost $2,500,000.

CHICAGO, ILL.—A $750,000 hotel for poor strangers in Chicago, containing 1,500 sleeping rooms, bath rooms, large social and lounging rooms and a restaurant, is to be built in the "loop" district, or just outside of it, by the Central Y. M. C. A. Details of the plans have been outlined by L. Wilbur Messer, Secy, of the local Y. M. C. A. The hotel will be modeled after the Mills hotels in New York and will have all the conveniences of the regular Y. M. C. A. dormitory, except the gymnasium.

Wallace Heckman, Counsel and Business Mgr. of the University of Chicago, has announced the completion of the architects' plans and the letting of the contract for the Harper Memorial Library, the monumental building to be erected on the university campus to perpetuate the name of William Rainey Harper. Work on the library, which has been planned since the death of the university president four years ago, and which will mean the expenditure of $900,000, will be begun in March. The contract, awarded to WELLS BROS. CO., 98 Jackson Boulevard, allows 16 months for completing the great building. The building itself will cost $600,000, the furnishings $100,000, and $200,000 will be used as a maintenance fund. Along with the plans Mr. Heckman announced a new gift of $55,000 to be used for special purposes in the erection of the library. Plans were given out also for the four buildings which will be part of the library group facing the Midway Plaisance, between Ellis and Lexington Aves. They will house the classics, modern languages, history and philosophy departments, and will cost an additional $800,000. The library will thus be the center of a row fo buildings forming a connecting line between Lexington and Ellis Aves. for two blocks. Ultimately the classics building will occupy the west end of the line, with the modern languages structure next, while on the other side of the library will be the history and philosophy buildings. Though of the same architectural style, each will have an individuality of its own. The library will be connected with the law building and Haskell Oriental Museum, with stone bridges from the tower corridors, forming a direct connection between seven of the university halls and surpassing in size the present tower group, consisting of Mitchell Tower, Hutchinson Hall, Mandel Hall and the Reynolds Club. The towers of the library will reach a height of 138 ft., six feet higher than Mitchell Tower, and the main building will be 113 ft. high. Its dimensions will be 276 × 80 ft., an area slightly more than 18,000 sq. ft. Shepley, Rutan & Coolidge, Ames Bldg., Boston, Mass., are Archs., for the University of Chicago.

ST. PAUL, MINN.—The Board of School Inspectors, C. W. Gordon, Pres., has engaged the following architects for school work for this year: A. F. Gauger, Bank of Minnesota Bldg., for the 8-room grade school at Hamline and Edmund, to cost $45,000; Buechner & Orth, Manhattan Bldg., for the 8-room addition to the Mound Park grade school to cost $32,000; E. J. Donohue, Gilfillan Block, for the 8-room addition to the Baker grade school to cost $30,000, and P. J. Linhoff, St. Paul, for the 8-room grade school in the Tenth Ward, to cost $14,000.

EMPORIA, KAN.—Notice is given by Jas. Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., that the time for opening bids for the extension, remodeling, etc., of the U. S. post-office at Emporia, has been extended from Jan. 14 to 3 p m., Feb. 15.

WICHITA, KAN.—The contract to be entered into between the City and the firm of Richards, McCarty & Wilson, Archs., The Ruggery, Columbus, Ohio, has been submitted to the City Commissioners. It was referred to the City Attorney for approval. The contract provides that the proposed auditorium building shall not cost more than $145,000. Added to this will be the architect's fee. It is barely possible that the building will cost less, as the Commissioners anticipate that in the competitive bidding the contractors will be enabled to figure under the architect's estimate. The plans for the new building will be completed sometime about Feb. 1.

KANSAS CITY, MO.—We are officially advised that plans for the dormitory or boarding home of the Y. W. C. A. to be erected sooon at the southwest corner of Eleventh St. and Troost Ave., have been accepted. They provide for a dormitory in which 115 women can board and a few transient roomers can be accommodated. The plans for a building of stone and red brick 68 × 109 ft. in dimension. The lot is 150 ft. long, but 42 ft. will be taken up with a sunken garden, which is designed not only for the ornamental effect, but also to allow light to enter the basement, which will be used for a dining room and kitchen. There will be three floors besides the basement. The building committee consists of the following: Mr. J. K. Henderson, Pres. of the association; Miss Nettie D. Trimble, Gen. Secy.; Mrs. Hugh C. Ward, Mrs. J. P. Prescott, Mrs. Walter S. Dickey, Mrs. S. W. Moore, Mrs. Frank Hagerman, Mrs. L. B. Andrews, Mr. Louis W. Shouse, Mr. W. H. Collins and Mr. Walter Root. The architects are Owen & Payson, Scarritt Bldg., Kansas City.

HOT SPRINGS, ARK.—Bids are asked until 12.30 p. m., Feb. 7, by Maj. G. D. Deshon, Q. M., Hot Springs, for construction, heating, plumbing, wiring and electric fixtures of two double sets officers' quarters at the Army and Navy General Hospital.

MUSKOGEE, OKLA.—The Board of Trustees of the Methodist Church of Oklahoma has purchased from W. N. Patterson, 210 acres of land on Agency Hill, three miles west of the city, upon which it will erect a $200,000 building, to be used as the Women's College of Oklahoma. The Methodist Conference at its session here in November established two schools in the state, one of which will be erected on the site mentioned above.

STILLWATER, OKLA.—Bids are asked until nooon, Jan. 15, by the State Board of Agriculture at the State Agricultural and Mechanical College at Stillwater for the following work: For the construction of a barn to cost approximately $10,000; for the construction of a power-house and heating plant to cost approximately $15,000; for the construction of a reinforced-concrete tunnel for heating plant to cost approximately $7,000; for the construction of a residence to cost approximately $10,000; for the construction of the Cameron State School of Agriculture building, located at Lawton, Okla., to cost approximately $20,000; for the construction of the Haskell State School of Agriculture School building, located at Broken Arrow, Okla., to cost approximately $20,000; for the construction of the Panhandle Agricultural Institute building, located at Goodwell, Okla., to cost approximately $10,000. J. P. Conners is Pres. Bd.; Bailey & Bailey, 220½ West Main St., Oklahoma City, Okla., are Archs.

DENVER, COLO.—Arthur S. Miller intends to erect an apartment house on Logan Ave., between 18th and 19th Aves. Cost, $50,000.

The Arnold Sisters, who control five lots at 18th and Logan Aves., expect to improve the site within a short time. Definite plans for the structure have not been decided on. Estimated cost, $50,000.

BREMERTON, WASH.—Bids are asked until 11 a. m., Feb. 19, by R. C. Hollyday, Ch. of Bureau of Yards and Docks, Washington, D. C., for constructing three officers' quarters at the U. S. Navy Yard, Puget Sound, Wash. Specifications are on file at the office of Engineering News, New York.

PORTLAND, ORE.—Contracts for the proposed court-house were let recently by the County Commissioners to UNITED ENGINEERING CONSTRUCTION CO. and to SCHANEN-BLAIR CO., for a total of $165,432. The United Engineering Construction Co.'s contract includes all but the Bedford (Ind.) stone, and is for $111,547. Schanen-Blair Co.'s contract was $53,858 for the Bedford stone.

PUENTE, CAL.—Bids will be received until Jan. 21 by the Board of Supervisors of Los Angeles County, Cal., at Los Angeles, for a jail to be erected at Puente, Cal.

SAN FRANCISCO, CAL.—More than $500,000 is involved in the cost of construction of four school buildings, for which plans were prepared by Emil De Nuef, City Arch., according to the San Francisco "Call." The four schools are the Newton J. Tharp Commercial School, the Bryant Cosmopolitan Primary Schoool, the Jean Parker Grammar School and the West End Primary School. A description of each of these school buildings follows: The Newton J. Tharp Commercial School will be a Class A building, three stories high above the basement. It is to be situated on Grove St., between Larkin and Polk Sts., on a lot 230 × 120 ft. The main entrance will be from Grove St. There are to be two side entrances leading into the yard at either side, and two rear entrances in Birch Ave. These entrances will connect with the four stairways The building will be equipped with the modern electric appliances as regards light, bells, telephones, clocks, etc. A separate water system will supply the drinking fountains with filtered water. The building will be heated and ventilated by the Plenum system and will be equipped with a vacuum cleaning plant. The cost of the building is estimated at $266,000.

The Jean Parker Grammar School will be situated in Broadway, between Powell and Mason Sts. The ground floor will contain the assembly hall, toilet rooms, manual training and domestic science rooms and the heating and ventilating apparatus. Each of the two upper floors will contain eight classrooms, as well as teachers' and principal's rooms. The two stairways are to be located at each end of a central corridor. The roof will be utilized as a play yard. The building will be of Class A construction, having a steel frame and being finished outside with pressed bricks and terra cotta trimmings. It will accommodate about 700 pupils. There will be two inside standpipes and hose reels on each floor. A separate water system will supply the drinking fountains with filtered water. The appropriation for the building is $160,000.

The Bryant Cosmopolitan Primary School is to be situated on a lot running from Bryant St. to York St., between 22d and 23d Sts. The building will of special construction, having the ground story and the first floor built of reinforced concrete. The construction of the two upper stories will be of wooden joists and studs, being finished both inside and outside with metal lath and plastering. The two stairways situated at either end of the main corridor are to be enclosed with fireproof partitions. The stairs are to be built of reinforced concrete and the entrance doors at the head of the stairs will be of metal and wire glass, making the stairways fireproof. The building will contain 16 class rooms, eight on each floor, besides principal's room, teachers' lunch and retiring rooms. In the basement are to be located the assembly hall and two special class rooms in the front. All the windows and outside doors are to be of metal. The roof is to be of red tile. The whole of the exterior walls will be finished in stucco. The yard will contain an ornamental flag pole, handball courts, etc. From the second story an iron stairway will lead from the center of the building to this yard, thus giving each story three distinct exits. The building will house about 720 pupils.

The West End Primary School is to be built at the corner of Morse and Lowell Sts., on a site 267 × 213 ft. This building is to be of special construction type, having the ground story built of reinforced concrete. The building will contain twelve class rooms, six on each floor, besides principal's room, teachers' lunch and retiring rooms. In the basement will be the assembly hall, special class rooms, etc. The roof is to be of tile. The whole of the exterior walls will be finished in stucco. The building will house house about 540 pupils.

LOS ANGELES, CAL.—Mrs. I. M. Polk will erect a $50,000 hotel building on South Hope St., directly opposite Y. M. C. A. building. Norman F. Marsh, Broadwell Central Bldg., Los Angeles, is Arch. The structure will be five stories high, of reinforced-concrete fireproof construction.

The American Warehouse & Realty Co. has been organized at Los Angeles to erect a 3-story concrete warehouse, 200 × 135 ft. Capital stock, $100,000. The Directors are Marco and Irving Hellman, Louis M. Cole, Max and Herman Goldsmith.

Trinity Methodist Episcopal Church will erect a $100,000 church building at 12th and Flower Sts., Los Angeles. The building will contain a boys' gymnasium and other features. R. P. Howell is Pastor. Other members of the Building Committee, Nathan Newby and B. B. Hensbey.

Dennis & Farwell, Archs., Exchange Bldg., Los Angeles, have awarded contract to the LLEWELYN IRON WORKS, of Los Angeles, to furnish and construct the cast-iron and steel work for a 4-story and basement building on Broadway, between Sixth and Seventh Sts. Cost, $47,567. The Contenants Co., owners. Limit, 50 days from Dec. 1.

LOS ANGELES, CAL.—A 6-story and basement apartment hotel building, to contain 200 rooms and to cost about $80,000, will be erected at the northeast corner of Figueroa and Tenth Sts. by J. C. H. Ivins, Byrne Bldg. It will be of Class C construction and of an adapted mission style of architecture. It will be 100 × 130 ft. and will have a lobby 28 × 60 ft., with marble wainscot, tile floor and beam ceiling. There will be stores on the first floor. Plans are being prepared by A. L. Haley, Arch., Inc., Citizens National Bank Bldg.

Construction of a foundation for a 10-story building on the west side of Broadway, between Eighth and Ninth Sts., and between the Hamburger Building and the Majestic Theater, will be begun next week for T. L. Tally. Whether the building will be made ten stories high immediaely or will be two stories temporarily, has not yet been decided. It was Mr. Tally's intention originally to erect a 2-story building now, for occupancy by his New Broadway Theater, but he has had a number of applications to rent stores in the building, should any be provided, and he is considering the construction at once of a 10-story steel frame loft and store building. Should he do this, he will erect a building elsewhere for his moving picture theater. The lot on which construction will be begun has a frontage of 60 ft. on Broadway and a depth of 162 ft., it being intended to have the building to be erected cover the entire lot.

TUCSON, ARIZ.—Mooreton W. Tanner, of Tucson, a representative of the Railroad Operators' Association, is interested in the construction of a home for disabled railroad employes at Tucson, according to the St. Louis "Globe-Democrat." The home will be located on 200 acres of land, and the architecture will be after the Mexican style. The building will be of concrete, two stories high, and will have verandas and courtyards. A hospital and farm will be a part of the home, as well as agricultural and trade schools, where the inmates of the home will be given an opportunity to work. These schools will be established in separate buildings. The Association has elected temporary officers: Samuel Fruty is Pres.; S. G. Langston, Gen. Land and Mining Agent of the Missouri, Kansaas & Texas, Vice-Pres.; L. Pierce, Supt. of the Union Depot at Denver, Colo., Treas.; Harvey Smith, Secy., Sedalia, Mo.

TORONTO, ONT.—The Bell Telephone Company will erect a north exchange, with a regulation 10,000-unit board, to take the place of the present Hayden St. exchange, as soon as the weather permits. A suitable site has been bought on Bismarck St., about 160 ft. east of Yonge St., and the house occupying 15 Bismarck St. has been torn down.

WINNIPEG, MAN.—W. J. Carrique, Bank of Ottawa Bldg., Montreal, Que., is having plans prepared for a 10-story office building to be erected here this spring.

The I. O. O. F. has decided to erect a club house this year at a cost of $60,000.

A contract has been let to NORCROSS BROS. CO., 160 Fifth Ave., New York, for the erection of the proposed Bank of Montreal Building here. Cost, $1,250,000. Work will start in the spring.

EDMONTON, ALTA.—The Provincial Architects are preparing plans for university buildings to cost $500,000. The main building will be 230 × 72 ft., with wings on each end 110 × 38 ft. The material used will be granite, sand and limestone.

STRATHCONA, ALTA.—The Massey Estate, of Toronto, Ont., has donated $50,000 towards the erection of a Methodist Theological College on the University grounds in Strathcona. The college will be built next summer at a cost of $100,000. The University Senate has donated a free site for the college.

NEW WESTMINSTER, B. C.—The Hospital Board has decided to call for competitive plans for an hospital to cost $100,000. The prizes range $400, $300, $200 and $100. Plans will be received till Feb. 1.

WATER-SUPPLY—IRRIGATION.

(* *denotes that this work is advertised in Engineering News.*)

*NEW YORK, N. Y.—Bids were opened on Jan. 11 by the Board of Water Supply for Contract No. 52, for the construction of portions of the White Plains Division of the aqueduct, the work including three tunnels on the hydraulic gradient aggregating 1.6 miles in length, one being 17 ft. high by 13½ ft. wide inside, and two 17½ ft. high by 13¾ ft. wide inside; and about 2.8 miles of plain concrete conduit, known as cut-and-cover aqueduct, 17½ ft. high by 18 ft. wide inside. The work is located in the towns of Mt. Pleasant and Greenburgh, Westchester County. Bids were received from Breuchaud & Winston, 290 Broadway, New York; David Peoples, Betz Bldg., Philadelphia, Pa.; J. F. Cogan Co., Brewster, N. Y.; Pittsburg Contracting Co., 1942 Forbes St., Pittsburg, Pa., and were referred to the Commissioner for tabulation. J. Waldo Smith is Ch. Engr.

NEW BRIGHTON, (S. I.), N. Y.—Bids are asked by the Department of Water Supply, Gas and Electricity, New York, until Jan. 14 for furnishing and delivering water mains in various streets in Fort Hill, New Brighton.

HORNELL, N. Y.—The Board of Public Works is preparing plans for the construction of a storage reservoir. A. P. Bannon, Jr., is Supt.

PEAPACK, N. J.—The Somerset Water Co., of Peapack, has been incorporated with a capital of $100,000 by George R. Layton and George H. Logan, to operate waterworks in Gladstone, Peapack, Far Hills, Bedminster and Pluckamin Townships.

TRENTON, N. J.—The Municipal Filtration Co., of Philadelphia, with $125,000 of capital stock, was incorporated here on Dec. 30. The concern is to construct and equip reservoirs, filters, irrigation plants, sewerage systems and sanitary water plants. The incorporators are: James B. Lockbridge, Philadelphia; Eccleston Barnett, New York, and William B. Banker, Passaic.

DU BOIS, PA.—The Buffalo, Rochester & Pittsburg Ry. Co. will soon commence the construction of a storage reservoir, with earth fill dam and concrete core wall, on Kyle Run, near here, for the purpose of furnishing the Du Bois terminal with a continuous gravity supply of pure boiler water. The dam will be 35 ft. high, 1,000 ft. long, and the reservoir will have a capacity of 500,000,000 gallons. The feed line will be 12-in. c.-i. pipe, four miles in length. The company has just completed a similar reservoir, with a capacity of 100,000,000 gallons, for supplying the engine terminal at Punxsutawney. E. F. Robinson is Ch. Engr., Rochester, N. Y.

PHILADELPHIA, PA.—See item under Streets and Roads.

WHEELING, W. VA.—The City Council has rejected award of contract to J. A. Swingle & Co., Zanesville, Ohio, at $89,316 for the erection of pump-house and drilling of wet well, and instructed the Board of Control to ask new bids on well and pump-house separately and as a whole.

PRATT CITY, ALA.—The Birmingham Water-works Co., Birmingham, has purchased the municipal water-works at Pratt City for $25,000 and will operate. The company will construct a pipe line from Ensley to Pratt City, upon completion of which water will be furnished direct from the Birmingham system. The Pratt City plant will then be discontinued.

MONTGOMERY, ALA.—The city contemplates the construction of one and perhaps two reservoirs with a capacity of about 2,000,000 gallons each to increase water supply in addition to installation of pumps. Gaston Gunter is Mayor.

MATHISTON, MISS.—The City Council has passed a resolution authorizing the issuance of $20,000 of water-works bonds.

LOUISVILLE, KY.—The Board of Water Works has been authorized to lay a 24-in. distributing main from Crescent Hill to Baxter and Finzer Aves. Theodore A. Leisen is Ch. Engr. and Supt.

LOUISVILLE, KY.—See item under Buildings.

GALLIPOLIS, OHIO.—Bids will be received by the Board of Trustees of the Ohio Hospital for Epileptics, at Gallipolis, until noon, Jan. 20, for furnishing the material and performing the labor for the erection of two water tube boilers at the institution, according to the plans, descriptions, bills and specifications which are on file at the office of Samuel Hannaford & Sons, Archs., Hulbert Block, Cincinnati, Ohio, and at the office of the Superintendent of the hospital at Gallipolis. William H. Pritchard is Secy.

BRADFORD, OHIO.—The Village has awarded to LARKIN BROS., of Dayton, Ohio, contract for constructing a water-works plant here. Estimated cost, $25,000.

EAST LIVERPOOL, OHIO.—The SAND & GRAVEL CO., of East Liverpool, has secured contract for constructing a system of mechanical filters, reinforced-concrete subsiding basin, laying c.-i. water pipe and constructing filter house, at about $50,963. Bids were opened by the Board of Public Service on Dec. 1. John W. Hill & Son, 506 First National Bank Bldg., Cincinnati, are Engrs. List of bidders noted on Dec. 16.

*BLOOMINGTON, ILL.—Bids will be received by the city until 5 p. m., Jan. 25, for the remodeling of its water-works plant, including the reconstruction and remodeling of buildings. One 6,000,000 or two 4,000,000-gallon pumps, a battery of boilers,

stage, main connections and all other work to be done and machinery and appliances to be furnished in and for the said work, according to the plans and specifications now on file in the office of the City Clerk of the city of Bloomington. Bidders and contractors are advised to consult the ordinance passed by the City Council on Dec. 31, 1909. Copies of plans and specifications may be had upon application to F. H. Lange, Supt. Water and Light.

MINNEAPOLIS, MINN.—We are officially advised that the City Council has awarded contract for 2,000 tons of c.-i. pipe for use during 1910 to the SHEFFIELD CAST IRON PIPE & FOUNDRY CO., of Sheffield, Ala., at $26.50 a ton, and 100 tons special castings to the CROWN IRON WORKS, of Minneapolis, at $53.50 a ton. Bids were opened on Dec. 17.

Bids will be received until Jan. 28 by H. A. Knott, City Clk., for 6, 8, 12 and 16-in. valves for the season of 1910, for hydrants and for a steel water-tower and tank. Specifications and plans are on file at the office of Andrew Rinker, City Engr.

ASHLAND, KAN.—We are officially advised that plans and specifications are being prepared for a water and light system at Ashland, Kansas. Bids will probably be asked early in February. J. S. Worley Co., Engrs., Reliance Bldg., Kansas City, Mo.

RUSSELL, KAN.—Burns & McDonnell, Scarritt Bldg., Kansas City, Mo., have completed plans for the construction of a waterworks system for Russell. Estimated cost, $65,000.

DODGE CITY, KAN.—We are officially advised that plans and specifications for a water-works system are being prepared by the J. S. Worley Co., Engrs., 206-7 Reliance Bldg., Kansas City, Mo., for Dodge City.

KANSAS CITY, KAN.—Contract between the Water Commissioners and the SNOW STEAM PUMP WORKS, Robert Ave., near Clinton St., Buffalo, N. Y., for one 12,000,000-gallon pump has been ratified by the City Council. The pump is to be installed at the Quindaro water plant. Estimated cost, about $38,290.

COZAD, NEB.—See item under Light and Power Plants.

NORTH PLATTE, NEB.—Bids will probably be asked in about two months for the proposed water-works. Estimated cost, about $100,000. Hershey S. Welch, of North Platte, is Engr.

BEATRICE, NEB.—The W. K. Palmer Co., Consulting Engrs., Dwight Bldg., Kansas City, Mo., are preparing plans for remodeling and improving the water-works system here. Estimated cost, $75,000.

FAYETTEVILLE, ARK.—The Board of Control has awarded contract to C. D. McILROY, of Fayetteville, at $26,445, for constructing auxiliary supply pipe line, water to be piped from Clear Creek, which has flow of about 1,000,000 gallons daily.

GRAHAM, TEX.—The city will install a filtering plant for city water. Estimated cost, $5,000.

DALLAS, TEX.—Bids are asked by the city until Feb. 2 for the construction of dam, spillway and pumping station at White Rock water-works reservoir. J. M. Bassett is City Engr.

*WALTERS, OKLA.—See item under Sewerage.

WEATHERFORD, OKLA.—Bids will be received by J. J. Winne, Mayor, until Jan. 28 for a water-works standpipe, a high pressure boiler, return tubular, an air lift pumping system for five wells, a duplex force pump and 36,000 ft. of water mains, with valves, hydrants, etc. W. K. Cunningham is City Clk. J. L. O'Hearn is Engr., Clinton.

ARDMORE, OKLA.—The City Commissioners have awarded contract to the HEALEY CONSTRUCTION CO., of Ardmore, at $7,200 for raising the dam at the city lake sufficiently to double water supply.

DURANT, OKLA.—The citizens on Dec. 28 voted to issue $20,000 for water additions and extensions and $20,000 for electric light plant. Southwestern Engineering Co., of Oklahoma City, are Engrs.

CHICKASHA, OKLA.—C. P. HOLLINGSWORTH, of Chickasha, has been awarded contract for laying 60,928 lin. ft. of 6-in. and 4,610 ft. of 8-in. c.-i. water pipe at 12.77 cts. per ft. Total, $8,369. Other bids were: T. C. Brooks & Sons Co., Jackson, Mich., $8,848; E. R. Kerby, Lawton, Okla., $8,184; G. A. Heman, St. Louis, Mo., $9,678; Freeborn Engineering & Construction Co., Kansas City, Mo., $8,903; N. S. Sherman Machinery & Iron Co., Oklahoma City, $9,-946; Kinsey & Heaney, Muskogee, $9,854; T. W. Roberts, Chickasha, $9,618. Elmer E. Colby is City Engr.

LAS ANIMAS, COLO.—Bids will be received by the Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until 10 a. m., Jan. 18, for furnishing at the U. S. Naval Hospital, Las Animas, a quantity of c.-i. pipe and fittings. Applications for proposals should refer to Schedule 2083.

LAMAR, COLO.—Bids will be received until Jan. 15, extension of date from Jan. 9, by the Chivington Canal Co., at Lamar, Eugene C. Bell, Ch. Engr., Room 10, U. S. Land Office Bldg., for the construction of a reinforced-concrete headgate about 100 ft. in length and 44 ft. in height; also reinforced-concrete riprapping, containing altogether about 200 cu. yds. of concrete, located on west bank of Chivington Reservoir No. 4, about two miles south of Brandon Station.

DENVER, COLO.—The Denver Reservoir Irrigation Co. has awarded contract, it is reported to the KENEFICK-QUIGLEY-RUSSELL CONSTRUCTION CO., of Kansas City, Mo., for construction of the Sunnyside Canal, which will be one of the main distributing canals of the Standley Lake irrigation system. The canal will extend 18 miles east of Hudson and have a capacity of 600 second feet.

LA JUNTA, COLO.—George G. Anderson, 18 Hughes Blk., Denver, has been retained as engineer for the work contemplated by the Otero Irrigation District. Estimated cost, $150,000. Contract will be let about Jan. 31.

PORTELES, N. MEX.—Bids will be received by Herbert B. Ryther, Town Clk., until Jan. 26, for furnishing material and constructing water-works, sewer system and electric light plant from the plans of Burns & McDonnell, Scarritt Bldg., Kansas City, Mo.

SEATTLE, WASH.—Contract for 7,000 water meters has been awarded to the NEPTUNE METER CO., for Trident meters, making the same type of meter as is now in use.

LOS ANGELES, CAL.—The LACY MFG. CO., of Los Angeles, has been awarded contract by the Board of Public Works, for furnishing and installing the Dove Springs and San Antonio syphons, for the Owens River Aqueduct at $22,315. Bids were opened on Dec. 20. List of bidders noted on Jan. 6.

NEWPORT BEACH, CAL.—See item under Light and Power Plants.

EL CENTRO, CAL.—A. T. Sonderegger, C. E., Central Bldg., Los Angeles, has been engaged by the City Trustees to prepare plans for the proposed municipal water system.

SAN FRANCISCO, CAL.—C. C. MOORE & CO., 99 First St., San Francisco, were awarded contract by the Board of Public Works on Dec. 31 to install the equipment of the Second and Townsend St. fire protection pumping station at $190,000. Marsden Manson is City Engr.

SALT LAKE CITY, UTAH.—The Engineering and Sewer Committee of the City Council on Dec. 23 approved the plans of George A. Chaney, City Engr., for the City Creek aqueduct and catch-basin. Estimated cost, $22,000. The aqueduct will be of cement and run from the east side of State St. up City Creek, a distance of about 2,000 ft.

WINNIPEG, MAN.—The city has awarded contract to the STANTON IRON WORKS, Nottingham, England, for 1,128 tons of water mains at $39,100 f. o. b. Winnipeg.

SAN MIGUEL, MEX.—Olmstead & Gillelen, Wright & Callender Bldg., Los Angeles, Cal., are preparing plans for a concrete dam to be erected across the Fuerte River, near San Miguel, to be used to divert water for irrigating purposes on the Los Morches sugar plantation. It will be 900 ft. long, 30 ft. average height. Sam G. Bennett is Resident Engr.

SEWERAGE.

(denotes that this work is advertised in Engineering News.)*

NEW BRIGHTON (S. I.), N. Y.—Bids will be received until Jan. 18 by George Cromwell, Pres. Boro. Richmond, for constructing a temporary combined sewer in Valley St., Sea and Tompkins Aves.

TROY, N. Y.—E. L. Grimes, City Engr., has estimated the cost of constructing a sewer in Spring Ave. at $8,839.

GLOVERSVILLE, N. Y.—Bids were opened on Dec. 21 by the city for the construction of a sewage disposal plant. The lowest bid received was that of A. L. Willey, of Binghamton, at $182,244. Other bids were: E. B. Baker & A. M. Banker Acme Construction Co., Schenectady, $237,145; Dean & Havens, Olean, $267,367; A. E. Brace, 10 Temple St., Gloversville, $437,254; David Peoples, Rye, N. Y., $224,111. The work consists mainly of the construction of about 1,000 ft. of outfall sewer; two primary vertical setling tanks; two secondary vertical tanks; three acres of sprinkling filters; three acres of sand-filters; three acres of sludge beds, together with various pipe lines and appurtenances. Morrell Vrooman is City Engr.; Harrison P. Eddy is Consulting Engr., 14 Beacon St., Boston, Mass.

MONTICELLO, N. Y.—We are officially advised that the citizens on Jan. 5 voted for the construction of about nine miles of sewers and a sewage disposal plant. Bids will be asked soon. George N. Bell is Engr., Kingston, N. Y.

*BATAVIA, N. Y.—We are officially advised that bids were received as follows on Jan. 5 for a sewage pump well, Contract No. 3: SCHAEFER & LOCKE, Batavia, $15,195 (awarded contract); C. T. Hookway, Syracuse, N. Y., $19,755; Thomas Sweeney Co., Pitsburg, Pa., $22,700; James R. Steels, Jr., Owego, N. Y., $15,380.

EAST ORANGE, N. J.—Bids wil probably be asked in February for the construction of sewers in Main St. Estimated cost, about $33,000. Frederic A. Reimer is City Engr.

ROSELLE, N. J.—The following contracts have been awarded by the Borough Council: DeROSA & JAQUES, at $3,781, for the construction of lateral sewers in Fifth Ave.; HARRISON CONSTRUCTION CO., 837 Broad St., Newark, for the construction of lateral sewers in Vine St.

PHILADELPHIA, PA.—See item under Streets and Roads.

*BALTIMORE, MD.—Bids are asked until 11 a. m., Feb. 9, at the office of J. Sewell Thomas, City Register, by the Board of Awards for constructing power-house, pump house and land conduits, Sanitary Contract No. 46; for constructing underwater discharge conduits, Sanitary Contract No. 47; for constructing lateral sewers in District No. 19B, Sanitary Contract No. 48; for constructing sanitary sewer in Lateral District No. 35, Sanitary Contract No. 49; for building storm-water drains, Contract No. 9. For details see advertisement in this issue.

*CHARLESTON, S. C.—The time for opening sewer bids for Contracts A and B has been extended to noon, Jan. 24. Bids were asked until Jan. 11. J. H. Dingle is City Engr.

DUBLIN, GA.—The city has decided to extend the sewer system to West Dublin.

*LOUISVILLE, KY.—C. T. McCRACKEN & CO., of Columbus, Ohio, have been awarded contract by the Commissioners of Sewerage for the construction of the Jane St. sewer, 3,456 ft. long, at $30,113. Bids were opened on Dec. 24.

GUILD & CO., Chattanooga, Tenn., have secured contract, bids opened on Dec. 17, for the construction of the 21st St. sewer, Contract 58, at about $32,355. List of bidders noted on Dec. 30. J. B. F. Breed is Ch. Engr.

ALLIANCE, OHIO.—The following bids were opened on Dec. 29 by the Board of Control for the construction of a large connecting sewer from a point on Broadway to the sewage disposal plant, about two miles long, to be of 20, 24 and 30-in. pipe: J. M. Applegate, $31,329; W. J. Irwin, $38,-274; Burns Bros., $36,982; J. C. Devine, $30,796; J. O'Neil, Akron, Ohio, $28,043; J. H. Ferry & Sons, $37,879; W. J. Townsend, $34,681; John Wilson, $37,570; Harry Baxter, $37,724; E. R. Royer, $36,332.

DAYTON, OHIO.—The BACKUS CONSTRUCTION CO., 950 Reibold Bldg., Dayton, has been awarded contract by the city for the construction of a 36-in. reinforced-concrete by-pass sewer, from the east side drain along the north side of the levee to the Longworth St. pumping station. The work includes 390 lin. ft. of 36-in. reinforced-concrete sewer, 7-in. shell. Bids were opened on Dec. 30.

SAGINAW, MICH.—The lowest bid received on Dec. 31 by the Board of Public Works for the construction of the Ellsworth St. sewer was that of W. N. Sager at $8,602. Other bids were: Z. & J. Lalonde, $8,818; John H. Qualman, $8,760; Charles Koch, $9,000; Eddy & Leeman, $9,172.

DETROIT, MICH.—We are officially advised that bids were received on Jan. 5 as follows by the Department of Public Works for engines, pumps and boilers for sewerage pumping station at the foot of Parkview Ave.: R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa., $112,500; Allis-Chalmers Co. Milwaukee, Wis., $118,900; P. F. Keating, Detroit, $122,450. R. H. McCormick is City Engr.

CHICAGO, ILL.—Bids will be received until Feb. 2 by Board of Trustees, Sanitary District, Chicago, I. J. Bryan, Clk., for the construction of a conduit in West 39th St. to be either brick or concrete, 14 ft. high and 12 ft. wide, approximately 2,340 ft. long.

ST. CHARLES, ILL.—Plans are about completed and contracts may be let in March for the construction of the sewer system. The work will include 7,200 ft. of 6-in., 53,350 ft. of 8-in., 8,520 ft. of 10-in., 2,670 ft. of 12-in., 950 ft. of 15-in. and 200 ft. of 18-in. pipe sewers and 2,600 ft. 24-in. concrete sewer, 237 manholes and 31 flush tanks. Sewage will be conveyed under Fox Rizer by means of an inverted siphon, 276 ft. in length, consisting of one line each of 8-in. and 12-in. pipe.

NEVADA, IOWA.—Bids will be received by F. G. Dunahugh, County Audr., Story County, until noon, Jan. 14, for the construction of the ditch or drain in Richland Township Drainage Dist. No. 20, all tile.

DUBUQUE, IOWA.—Paul Ilg, City Engr., is preparing plans for a 14-ft. arch brick, concrete or reinforced-concrete storm sewer extension at Bee Branch. Estimated cost, $9,000. Bids will be asked in the spring. J. W. Lawlor is City Clk.

STORM LAKE, IOWA.—Contracts for constructing sewers, bids opened on Dec. 28, have been awarded as follows: To LYTLE CONTRACTING CO., Sioux City, for 31,000 ft. of 8, 10, 12 and 15-in. sewer at $31,403; to COOK CONTRACTING CO., Des Moines, Iowa, for septic tank, filter areas and 1,612 ft. of 15-in. sewer at $9,489. Charles P. Chase is Engr., Clinton, Iowa.

SHENANDOAH, IOWA.—CHARLES A. HAMILTON, of Shenandoah, has been awarded contract for constructing vitrified pipe sewers in portions of Summit and Eighth Aves.

ST. PAUL, MINN.—Bids are asked by the Board of Public Works until Jan. 17 for the construction of the Otto Ave. sewer and other sewers. Estimated cost of Otto Ave. sewer, $6,390.

ST. LOUIS, MO.—Bids are asked until Feb. 11 by the Board of Public Improvements for the construction of a 5 to 11-ft. sewer in North Harlem Creek Joint Sewer District, sewer to be 2¼ miles long. Estimated cost, $246,120.

DALLAS, TEX.—Contract for changing certain sanitary sewer lines in Jackson St., near Austin, has been awarded to the DALLAS HOME IMPROVEMENT CO., at 40 cts. a lin. ft. and $5.50 for specials.

*EL PASO, TEX.—Bids will be received by Percy McGhee, City Clk., until Feb. 3, for furnishing material and constructing refuse incinerating and sewage pumping station, force main and sewage disposal works, with appurtenances, but not including furnaces, pumps and machinery; also for construction of refuse incinerator, steel stack and sewage pumping station equipment. For details see advertisement in this issue. Hering & Fuller, 170 Broadway, New York, are Engrs.; F. H. Todd is City Engr.

*WALTERS, OKLA.—Bids will be received by J. O. Dowd, Mayor, until Jan. 24, for the purchase by the city of all material necessary in the construction of a system of sanitary sewers and water-works extension. Specifications covering requirements can be had by addressing O'Neil Engineering Co., Dallas, Tex.

PORTELES, N. MEX.—See item under Water Supply—Irrigation.

VANCOUVER, WASH.—The CASCADES CONTRACT CO. was awarded contract on Dec. 22 by the city at $17,151, for the construction of sewers in Grant, Harney, Ingalls and Jefferson Sts.

TACOMA, WASH.—N. A. JONES, California Bldg., Tacoma, has been awarded contract at $7,533 for constructing the Pearl St. sewer by H. J. McGregor, Comr. Pub. Wks. Other bids were: Lister Construction Co., $8,140; Coast Contracting Co., $7,977; E. M. Moore, $8,500.

SANTA CLARA, CAL.—Bids will be received until Jan. 24 by the town for the construction of a sewer system. Estimated cost, about $20,000. C. E. Moore is City Engr.

BERKELEY, CAL.—J. J. Jessup, City Engr., is preparing plans and specifications for improvements to the Berkeley sewer system. Estimated cost, about $500,000.

WHITTIER, CAL.—M. L. HOSTETTER, of Whittier, has been awarded contract for constructing septic tank and four miles of outfall sewer.

PROVO CITY, UTAH.—Bids are asked until 4 p. m., Jan. 24, by the City Council at the office of the City Recorder for the construction of 55,083.3 ft. of sewers in sewer district No. 12. E. A. Jacob is City Engr. Estimated cost, $73,601.

PAYETTE, IDAHO.—R. M. BARSDEN & CO., of Butte, Mont., have been awarded contract at $28,825 for the construction of a sewer in improvement district No. 1.

GARBAGE DISPOSAL.

(denotes that this work is advertised in Engineering News.)*

MONTCLAIR, N. J.—The Town Council has the construction of a garbage disposal plant under consideration. Runyon & Cary, Engrs., of Newark, N. J., have been selected to prepare preliminary estimates.

*EL PASO, TEX.—See item under Sewerage.

STREETS AND ROADS.

(denotes that this work is advertised in Engineering News.)*

NEW YORK, N. Y.—Bids are asked by Lawrence Gresser, Pres. Boro. of Queens, until 11 a. m., Jan. 17, (1) for regulating, grading and repaving with macadam pavement the roadway of Hillside Ave., from Bergen Ave. to Rocky Hill Road, Fourth Ward; (2) the roadway of Jamaica and Flushing Road, from Sanford Ave., Flushing, to Maxwell St., Jamaica, Third and Fourth Wards; (3) the roadway of Broadway, from Bell Ave. to Little Neck Bridge, Third Ward; (4) the roadway of Rocky Hill Road, from Hillside Ave. to Jericho Turnpike, Third and Fourth Wards; (5) the roadway of Catalpa (Elm) Ave., from Fresh Pond Road to Myrtle Ave., Second Ward; (6) for regulating, grading, curbing, recurbing and repaving with sheet asphalt on a concrete foundation in Seventh Ave., from 16th to 18th Sts.; 18th St., from Seventh to Eighth Aves.; Eighth Ave., from 16th to 21st Sts., and 16th St., from Seventh to Eighth Aves., Third Ward.

Bids are asked by George McAneny, Pres. Boro. of Manhattan, until 2 p. m., Jan. 18, for repairing and maintaining sheet asphalt pavements in the Boro. of Manhattan.

FULTON, N. Y.—The Board of Public Works on Dec. 30 awarded the contract for paving a portion of North First St. to J. A. FITCH, of Fulton, at $9,055.

BUFFALO, N. Y.—The following are the lowest bids received by Francis G. Ward, Comr. Pub. Wks., recently, for repaving a portion of North Division St.: H. P. Burgard, 500 Walden Ave., with asphalt, $29,-000, and F. V. E. Bardol, D. S. Morgan Bldg., with medina stone, $38,000, and brick, $27,000.

SCHENECTADY, N. Y.—The UNION PAVING CO., 525 State St., has secured the contract for paving Altamont Ave. at $2.29 per sq. yd. for asphalt and $2.42 for brick.

PHILADELPHIA, PA.—On Dec. 30 the City Council passed the Permanent Loan Bill as reported by the Finance Committee to include the following: $1,750,000 for schools shall be used solely for the purchase of sites and the erection of buildings for elementary schools; parkway, $1,000,000; port improvements, $600,000; Queen Lane filtration plant, $525,000; Northeast high pressure fire system, $500,000; resurfacing roads, $300,000; police and fire station buildings, $265,000; League Island Park, $250,-000; main sewers, $250,000; branch sewers, $200,000; repairs to non-traction streets, $200,000; grading streets, $300,000; macadamizing roads, $100,000; paving street intersections, $10,000; new bridges, $100,000; new equipment, fire bureau, $100,000; playgrounds, $100,000; Soldiers' and Sailors' Memorial monument, $100,000; restoring Congress Hall and improved lighting of Independence Hall and Independence Sq., $60,-000, and Cohocksink sewer, $50,000.

MILLVALE, PA.—We are officially advised that bids were received on Jan. 4 by H. H. Dixon, Boro. Clerk, 401 Grant Ave., Millvale, Pa., for grading, curbing and paving Sample St. in the Borough of Millvale. The contract has been let to JOHN BATTENFIELD & SON, of Millvale, Pa.

ARLINGTON, VA.—We are officially informed that bids were received by Maj. M. Gray Zalinski, Q. M., Washington, D. C., on Dec. 20, for grading, installing drainage, etc., at the Arlington National Cemetery. The contract has been awarded to L. M. JOHNSON at 24 and 33 cts. per cu. yd. of excavation and soil.

*LENOIR, N. C.—Bids were received by the Lenoir & Blowing Rock Turnpike Co., of Lenoir, on Jan. 5 for grading and macadamizing about three miles of road near Lenoir, N. C., and macadamizing three additional miles to be graded by the company.

R. L. Gwyn is Secy.-Treas.; C. M. Miller, Engr., Salisbury, N. C. We are officially advised that the contract has been let to HART & ABLE, of Hickory, N. C. Cost, between $25,000 and $30,000.

CHARLESTON, S. C.—Bids are asked until 11 a. m., Jan. 29, by William M. Smith, Acting Ch. of Bureau of Yards and Docks, Navy Dept., Washington, D. C., for paving at the Navy Yard, Charleston. Specifications are on file at the office of Engineering News, New York.

GORDON, ALA.—Bids will be received until March 15 at the office of W. J. Parish, County Comr., at Gordon, for constructing 51 miles of graded roads.

DAYTON, OHIO.—The City Council has decided to proceed with the improvement of Phillips Ave., Summit St. and Xenia Ave. This work will include either stone or concrete curb or combined concrete curb and gutter and paving with either asphalt, creosoted wood block, bituminous macadam, asphalt, asphalt block, brick or Medina stone. Contracts will be let early in the spring. F. J. Cellarius is City Engr.

EATON, OHIO.—The Commissioners of Preble County have decided to construct one mile of road under the supervision of the State Highway Department. W. A. Markey, Eaton, Ohio, is County Engr.

*COLUMBUS, OHIO.—The Board of Public Service has awarded contracts for paving as follows: WILLIAM H. LUCHTENBURG & CO., The Wyandotte, with Trimble block, Glenwood Ave., $32,472; GEIGLER & GARNS, Centner Ave., $9,176; BUDD & BORTLING, Ninth St., $5,400; HARRY J. SHAW, Outlook Bldg., Scioto St., $9,896, and Wesley Ave., $5,870.

LOGANSPORT, IND.—We are officially advised that bids were received on Dec. 7, by the Board of Commissioners of Cass County for material and labor for laying a new sidewalk on the east side of the Cicott St. bridge across the Wabash River. George W. Cann is County Audr. The contract has been let to S. S. McKINNEY.

ANDERSON, IND.—Bids are asked by the Commissioners of Madison County until 10 a. m., Jan. 25, for the construction of the following stone or macadam roads: The Taylor road, 5,508 ft. in length; the Turner road, 9,176 ft. long; the Wilson road, 3,538 ft. long; the Frazier road, 1,404 ft. long; the Seward road, 1,389 ft. long; the Mimick road, 3,342 ft. in length; the McKey road, 2,218 ft. in length; the Kidwell road, 3,327 ft. in length; the Swanfelt road, 2,937 ft. in length; the Stringlitz road, 4,946 ft. in length; the Jones road, 4,472 ft. in length; the Carpenter road, 5,199 ft. in length; the Frank Seward road, 3,057 ft. in length; the Smock road, 3,736 ft. in length; the Price road, 2,050 ft. in length, all in Pipe Creek Township. William T. Richards, County Audr.

SOUTH BEND, IND.—Bids were received on Dec. 31 for a brick pavement on Prairie Ave., 30,922 sq. yds., and the contract has been awarded to H. M. BARNES, of South Bend. The paving will be of Barr block and cost about $56,000.

WINNETKA, ILL.—JAMES CAPE & SONS, of Racine, Wis., have secured the contract for street improvements here at about $20,000.

EAST ST. LOUIS, ILL.—Bids will be received until about Feb. 1 by the Board of Local Improvement for improving portions of Waverly and Belmont Aves., requiring 54,000 and 27,400 sq. yds., respectively, of vitrified brick paving. W. J. Crocken, City Engr.; Frank B. Hanna is Clerk.

EAST ST. LOUIS, ILL.—The following bids were received on Jan. 8 for improving 25th St., from State St. to the Louisville & Nashville R. R.: J. & P. Keeley, $17,539; Meyer & Thomas, $17,721; MYERS CONSTRUCTION CO., Fifteenth St. and Winstanley Ave., East St. Louis, $16,301 (awarded contract); P. P. Gaynord, $19,175. W. J. Crocken is City Engr.

MOLINE, ILL.—Bids are asked until 10 a. m., March 1, by the Committee on Parks of the City of Moline, at the office of the City Clerk, for the improvement of that part of Riverside Cemetery detached for park purposes by the construction of driveways and by planting trees, shrubs, herbs, etc. Henry J. Gripp is Chn.

OTTUMWA, IOWA.—We are officially advised that bids were received on Jan. 3 for about 16,000 sq. yds. of brick paving with 6-in. Portland cement concrete foundation and 1,200 sq. yds. of creosoted block paving and 10,000 lin. ft. of cement curb. The contract for brick pavement was let on Jan. 6 to J. C. BLACK, of Ottumwa; the contract for creosoted block pavement was let to A. C. MORRISON, of Minneapolis, Minn. John T. Brady is City Engr.

ST. PAUL, MINN.—Bids are asked until 2 p. m., Jan. 17, by the Board of Public Works for surfacing with gravel Iglehart Ave., from Finn to Cretin Aves. Peter Van Hoven is Pres. L. W. Rundlett is City Engr.

KANSAS CITY, KAN.—The Board of County Commissioners will receive bids about Feb. 15 for grading and macadamizing Sherman Road. J. M. Lindsey is Co. Engr.

HUTCHINSON, KAN.—Bids will be received until Jan. 18 by Edward Metz, City Clk., for 2,650 sq. yds. of brick pavement on Adams St., also 1,320 lin. ft. of curb and gutter and 96 ft. of curb.

HOUSTON, TEX.—The City Council has awarded the contract for paving with brick portions of Washington Ave., San Jacinto, Travis and Main Sts. to A. T. LUCAS at $31,988; other bids received were as follows: Kelso & Vantrim, $32,152; E. N. Dronet, $33,290; Texas Grading Co., $34,006 and $35,092, and John C. Underwood, $36,394.

ADA, OKLA.—We are officially advised that bids were received on Jan. 3 for paving 38,680 sq. yds. with Oklohoma rock asphalt on a 5-in. Portland cement concrete base. P. G. Ekman is City Engr. Three bids were received and rejected, being informal.

GOLDEN, COLO.—We are officially advised that no bids were received on Jan. 3 for constructing a permanent driveway or boulevard from Denver to Golden. C. W. Comstock is State Engr., Denver. No bids were received for this work on Dec. 18.

TACOMA, WASH.—The City Council has ordered Sixth Ave. paved to the Narrows, at a cost of $175,000. W. C. Raleigh is City Engr.

HOQUIAM, WASH.—Bids probably will be received in February for about 60,000 sq. yds. of brick, asphalt, bitulithic or wood block paving. Cost, $350,000. Z. T. Wilson, City Clk.; J. D. Monghmer is City Engr.

SPOKANE, WASH.—The Bd. Pub. Wks. on Dec. 20 awarded the contract for grading and constructing sidewalks on a portion of Bernard St. to NAYLOR & NARLIN, at $15,890.

LONG BEACH, CAL.—The Board of Public Works, Long Beach, Cal., awarded street paving contracts to the amount of $124,300 on Dec. 29. C. W. BRASHEAR, Hellman Bldg., Los Angeles, was awarded the contract for paving Appleton St. for $20,276, Railway St. West, for $13,019 and American Ave., for $32,154; FAIRCHILD GILMORE WILTON CO., Pacific Electric Bldg., Los Angeles, was awarded contract for paving Railway St., East, for $17,721; C. H. WHITE, contract for paving Linden Ave., at $40,086, and for paving Kennebec St., at $1,152.

SAN DIEGO, CAL.—The City of San Diego has authorized the construction of a concrete sidewalk and curb on both sides of Prospect St., in La Jolla. J. T. Butler is City Clerk.

The city will call for bids soon for the improvement of Fourth St., from Walnut to University Sts. Estimated cost, $22,000. E. M. Capps is City Engr.

The Board of Public Works has authorized the improvement of Columbia St. by grading, paving, curbing and constructing a 36-in. cement pipe culvert and catch basin, and a concrete footing and iron railing. Bids to be called for soon. J. T. Butler is City Clerk.

HOLLYWOOD, CAL.—The Board of Trustees of Hollywood have authorized the improvement of Cosmos St.; also Gardiner St.; also to improve Iowa and Primrose Aves. for a distance of 1,550 ft., and both sides of Vine St., and construct cement curbs, gutters and concrete culverts.

OCEAN PARK, CAL.—The Board of Trustees, Ocean Park, has authorized the extension of Rose and Linden Aves. and pavement and curbing for the same. They have authorized the construction of a vitrified pipe sewer in Alley No. 148. George Bumer is Supt. of Streets.

LOS ANGELES, CAL.—B. F. FORD, Capp Bldg., has been awarded the contract for improvment of New Hampshire Ave., at $7.25 per lin. ft. for grading and graveling; 32 cts. sq. ft. for vitrified block guter; 35 cts. lin. ft. for cement curb; 16 cts. sq. ft. for cement gutter; 14 cts. sq. ft. for sidewalk; $664 for culverts.

STOCKTON, CAL.—The Board of Supervisors have received bids as follows for 13.8 miles of macadam roadway in the Manteo section of San Joaquin County: Clark & Henry Construction Co., of Stockton, $97,846, and Cotton Bros. & Co., of Oakland, Cal., $88,826.

MEXICO CITY, MEXICO.—The Mexican Congress has just approved a contract entered into between the Government and the Compania Bancaria de Fomento y Bienes Raices and the Compania Asphalto y Construcciones, one of the Doheny interests, for the construction of 30 new asphalt streets in Mexico City, each company to build 15 streets. The "Mexican Herald" states that Ebano asphalt is the material to be used, while the works at Dubian will furnish the cement employed in the concrete work. The work will be done at $3.15 gold per sq. meter. The contract calls for a cash payment of $1 upon completion and the balance of $2.15 to be divided into ten equal annuities.

MANUFACTURING PLANTS.

(denotes that this work is advertised in Engineering News.)*

LEOMINSTER, MASS.—The Jewett Piano Co. will construct a 1-story brick addition here, 150x50 ft., as soon as the weather permits.

BRAINTREE, MASS. — The Hollingsworth & Whitney paper mills have been purchased by J. H. Stedman, and the new owner intends to erect one or more concrete buildings to add to the plant for the manufacture of rubber goods.

OLNEYVILLE (Providence post-office), R. I.—The Elston Worsted Co. intends to erect a 4-story addition to its plant at Olneyville next spring. Plans are now being drawn by Thomas Evans, 75 Westminster St., Providence, Engr.

JAMESTOWN, N. Y.—Ashworth & Odell and Chadekoin Knitting Co., 316 Cherry Bldg., Jamestown, have awarded to CHARLES SWANSON, 8 River St., Jamestown, the mason work, and CHARLES LINDBECK, 8 River St., carpentry, for the 4-story fireproof brick and steel worsted mill, 80 × 200 ft., to be erected on Crescent St. George S. Rider Co., Century Bldg., Cleveland, Ohio, is Archts. and Engrs. Estimated cost, $200,000. H. L. Odell and Asa Ashworth are in charge.

BUFFALO, N. Y.—The Acme Steel & Malleable Iron Works, E. G. Felthousen, Pres., 245 Military Road, has plans under preparation for an addition to its malleable iron foundry, 147 × 225 ft., which it will build next spring at Military Road and the New York Central R. R. Belt Line.

BUFFALO, N. Y.—We are officially advised that the King Sewing Machine Co., 254 Court St., Buffalo, has leased for a long term eight acres of land on Rano St. and the Delaware, Lackawanna & Western R. R., on which a manufacturing plant will be erected, costing about $150,000. Three 1-story fireproof buildings will be erected at once with a floor space of 200,000 sq. ft. A fourth building will be built later. There will be a main building, 300 × 300 ft., with sawtooth roof; foundry, 150 × 300 ft.; warehouses and office building. Plans have not been completed.

HOBOKEN, N. J.—Albert Pflug & Co., 14th St. and Willow Ave., Hoboken, manufacturers of white lead, are contemplating the erection of a factory. No contract has yet been placed, or plans decided upon. Estimated cost, $30,000.

BLOOMFIELD, N. J.—The AMERICAN CONCRETE STEEL CONSTRUCTION CO., Union Bldg., Newark, N. J., has secured the contract to erect a 5-story reinforced steel and concrete factory building in Watsessing for Scott & Bowne, Pearl St. Bldg., New York. Estimated cost, $175,000.

PHILADELPHIA, PA.—William Steele & Sons Co., 1600 Arch St., have completed and posted plans for erection of a 3-story reinforced concrete manufacturing building at 18th and Courtlandt Sts., for the Friedberger Aaron Co., lace manufacturers. Cost, $100,000.

LEBANON, PA.—The W. H. Treadwell & Co., of Pennsylvania, located at Lebanon, desires to combine its several plants and secure a site that would be more advantageous to their various branches of business. The company has advertised for a tract of land for its plants of from 20 to 30 acres. The company at present has two plants at Lebanon and one at Myerstown. It proposes to secure a site in some town in the state where new shops will be erected and remove from the present locations. The concerns manufacture rolling mill and blast furnace machinery, shaking grates and boiler fronts.

MONESSEN, PA.—The Pittsburg Products Co., a new company, has taken over the plant of the Seamless Tube plant at Monessen and, it is stated, will immediately increase the capacity as well as create several new departments. The change is effective at once. Among the new departments to be created, besides that of the seamless tube manufacture, will be one for the manufacture of reinforced concrete for steel, steel telegraph poles, automobile axles and steel girders. This increased output will necessitate the employment of double the number of men now employed and by spring the company will have in the aggregate of 1,000 men at work. A. Allison, who has been Supt. of the Seamless Tube Co. will assume the superintendency of the new plant.

PITTSBURG, PA.—We are officially advised that the Pittsburg Testing Laboratory, 325 Water St., Pittsburg, Pa., has purchased a lot at the corner of Seventh and Bedford Aves., Pittsburg, Pa., on which to erect a 5-story fireproof office and laboratory building during the present year. This company established branch offices at Birmingham, Ala., and Pueblo, Colo., during the past year. A. B. Bellows is Vice-Pres.

WILMINGTON, N. C.—The Tidewater Power Co., Wilmington, expects to begin work soon on repair shop to be 50 × 110 ft. The building will be of corrugated iron and heavy mill construction. H. Woolcott, Wilmington, is Secy.

FRANKLIN, N. C.—The Golding Sons Co., of East Liverpool, Ohio, has awarded a contract to the PATTERSON FOUNDRY & MACHINE CO., of East Liverpool, for the erection of a 30-ton clay washing plant at Franklin, N. C. Cost, $50,000.

BESSEMER, ALA.—The Veitch-Matthews Engine Co. will erect a plant at Twelfth Ave. and 19th St.

BOWLING GREEN, KY.—The Bowling Green Rv. Co. will build a concrete car house and repair shop. Work will be started early in the spring. H. D. Fitch is Pres.

AKRON, OHIO.—The City Council, at a recent meeting, passed the ordinance on its final reading to vacate Cole Ave. and other streets in South Akron to enable the Firestone Tire & Rubber Co., to build the plant that it has under consideration.

OAKLAND CITY, IND.—The Oakland City Electric Light & Power Co. has ordered plans for the construction and equipment of an ice plant to be operated in connection with the power plant. John R. Clarke is Supt.

EVANSVILLE, IND.—The Bass Furniture Co. has increased its capital stock $50,000 to erect and equip a large extension to its plant. Benjamin Ross is Pres.

MUNCIE, IND.—The Muncie Glass Mfg. Co. announces that bids will be received for the reconstruction of its manufacturing plant on the site of the old plant as soon as the insurance is adjusted and plans can be completed. Estimated cost, $70,000.

Milton and John Retherford have ordered plans, on which bids will be asked, for the erection and equipment of a plant for the manufacture of gas and electric fixtures.

ELKHART, IND.—Anton V. Hassman, inventor of a fuel called petrified petroleum, and Chicago associates, are preparing to ask for bids for the erection of a factory to manufacture the fuel. The estimated cost is $60,000.

DETROIT, MICH.—We are officially advised that the management of the Northern Engineering Works, Detroit, has purchased additional land adjoining its plant and is preparing to construct an extension to its crane works.

GALESBURG, ILL.—The Gross-Brown Mfg. Co. will erect a plant for the manufacture of a refrigerator and an ice cream freezer combination. C. B. Brown, of Waterloo, Iowa, is interested.

TWO RIVERS, WIS.—An industry is to be established by the M. Friedlander Knitting Co., 184 Fifth St., Milwaukee, at Two Rivers. The company will employ 100 hands at the start and expects eventually to erect its own plant and employ 400 men.

DES MOINES, IOWA.—The contract for construction of a factory building at Eleventh St. and East Court Ave. for the Bradley & Olmsted Boot & Shoe Co., has been awarded to CHARLES WEITZ & SONS, 13 Mulberry St., at $30,000.

MINNEAPOLIS, MINN.—The Keller Mfg. Co., of Sauk Center, Minn., contemplates erecting a factory at Monroe and Jackson Sts., N. E., Minneapolis, to cost $75,000.

ST. LOUIS, MO.—The St. Louis Basket & Box Co. will make improvements in its South St. Louis plant. The company will erect an addition to its plant at Second and Arsenal Sts., to cost $60,000. The plans and specifications have been prepared and the official announcement that contracts will be let will be given out soon, it is stated. C. W. Johnson, Pres. of the corporation.

SHAWNEE, OKLA.—The Chicago, Rock Island & Pacific Ry. Co. is taking steps to erect new shops on the site of the building destroyed by an explosion; probable cost $100,000. T. H. Beacom is Div. Supt.; Trenton, Mo.

COLTON, CAL.—The Atchison, Topeka & Santa Fe Ry. Co. intends to erect a roundhouse at Colton. S. L. Bean is Mech. Supt. Coast Lines, Los Angeles, Cal.

SAN FRANCISCO, CAL.—Three factory buildings to cost $36,000 are to be erected by the Worden Meeker Co. at the north end of Oak St., for the manufacture of varnish and kindred products. Each factory will be of concrete and will be of fireproof construction. Two buildings will be two stories in height and the other three stories.

ESCONDIDO, CAL.—W. E. Alexander, of Escondido, Cal., has purchased a site near the Santa Fe R. R. terminus on which to erect a pre-cooling plant. An ice manufacturing plant will be installed in the building also.

ONTARIO, CAL.—The Pacific Electric Heating Co., of Ontario, Cal., has plans prepared for an addition to its factory building, to double the capacity of its plant, 70 × 110 ft., of reinforced concrete, with cement floor, galvanized iron roof. Tool making and wood-working apparatus will be installed. From 50 to 75 additional men will be employed.

FORT WILLIAM, ONT.—The establishment of the Superior Rolling Mills Co. at Fort William is practically assured. On Dec. 23, W. A. Black deposited a check for $5,000 on behalf of the company, as a guarantee, pending the decision of the ratepayers who are to vote on the by-law in January. The city agrees to give ten acres of water frontage now owned by it. The company will manufacture wire nails and kindred articles.

PHILIPPINES.—Bids were received as follows on Jan. 8 by R. C. Holiyday, Ch. of Bureau of Yards and Docks, Navy Dept., Washington, D. C., for the installation of ice-making machinery at Olongapo, P. I.: Pennsylvania Engineering Co., 1119 North Howard St., Philadelphia, $13,200, $11,700; Vilter Mfg. Co., 872 Clinton St., Milwaukee, Wis., $11,180; York Mfg. Co., York, Pa., $7,000, $10,976, f. o. b., Navy Yard, New York.

MISCELLANEOUS.

(denotes that this work is advertised in Engineering News.)*

U. S. RECLAMATION SERVICE.—All news relative to canal projects, etc., will be found under Water Supply—Irrigation.

TUNNEL.—Stillwater, Okla.—See item under Buildings.

PORT IMPROVEMENTS.—Philadelphia, Pa. —See item under Streets and Roads.

DITCH.—Hartford City, Ind.—Bids will be received until Feb. 3 by the Board County Commissioners for constructing the Hocroft ditch. Estimated cost, $7,800.

FIRE APPARATUS.—Richmond, Ind.—The City Council has voted to ask for bids for furnishing a considerable amount of new apparatus for the fire department.

DITCH.—Fort Wayne, Ind.—Bids will be received by David F. Spindler, Supt. of Construction, until 2 p. m., Jan. 22, for construction of the Heidbrink ditch, in St. Joe Township.

DREDGING.—Covington, La. — JAHNKE BROS. CO., of Covington, has secured contract for dredging the Bogue Falaya River, from Caesar's Bayou to the head of Columbia St., at about $4,000.

DRAINAGE SYSTEM.—Sanford, Fla.—J. E. PACE, of Sanford, has been awarded contract, at $58,562, by the Board of County Commissioners for drainage, culverts, etc., in the Sanford Drainage District.

DITCH.—Olivia, Minn.—Bids will be received by J. L. Johnson, County Audr., until April 30, for deepening and repairing Ditch No. 3. Estimated cost, $6,000. It will be scraper work. Noted on Dec. 23.

REVETMENT, ETC.—Cummins, Ark.—The Linwood and Auburn Levee Board has awarded contract for constructing bank protection work in vicinity of Cummins to JAMES TRAINOR, of Little Rock, Ark., at about $19,000.

DITCH.—Smartville, Cal.—Plans and specifications for the excavation of the ditch of the Tarr Mining Co. have been issued, and bids will be received until Feb. 5. E. W. Tarr is Pres. and Gen. Engr., Stoll Bldg., Sacramento.

FILLING.—Olympia, Wash.—Bids were received on Dec. 20 by the City Council for (a) the Water St. and (b) Swantown slough fills, and the lowest bid submitted was that of the International Construction Co., of Seattle, at (a) $92,980; (b) $53,758.

DRAIN.—Nevada, Iowa.—Bids will be received until Jan. 14 by the County Auditor for furnishing material and constructing county drain No. 20. The work includes seven miles of 8-in. to 20-in. tile drain. Estimated cost, $20,000. John M. Wells, Engr., Nevada.

DITCH.—Nettleton, Ark.—R. H. McWILLIAMS, of Mattoon, Ill., has been awarded contract for digging the Thompson ditch, six miles in length, starting near Brookland and running close by this place into Big Bay, at 12½ cts. per cu. yd. There will be 124,000 cu. yds. to be removed.

LEVEE.—Memphis, Tenn.—Bids were received by the Mississippi River Commission, Maj. M. L. Walker, U. S. Engrs., Memphis, on Dec. 22 for about 61,000 cu. yds. of levee work in the Lower St. Francis levee district. Contract has been awarded to ROACH & STANSELL, of Memphis, Tenn.

FIRE HOSE.—New York, N. Y.—No bids were received on Dec. 30 by the Fire Department for furnishing and delivering 10,000 ft. of 3-in. rubber fire hose. The Diamond Rubber Co., 1876 Broadway, submitted a bid of $30,000 on 15,000 ft. of 2½-in. cotton rubber-lined fire hose, at the same time.

CONCRETE FENCE POSTS.—Cincinnati, Ohio.—The Cleveland, Cincinnati, Chicago & St. Louis Ry. Co. plans to install machinery for making concrete fence posts to be used along its right-of-way. It is expected that 100,000 concrete posts will be made this year. Geo. P. Smith is Ch. Engr., Cincinnati.

RAILING.—Boston, Mass.—Bids will be received until 11 a. m., Jan. 29 at the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for additional rail around Dry Dock No. 2, U. S. Navy Yard, Boston. Specification No. 1691 is on file at office of Engineering News, New York. Estimated cost, $3,500.

DITCHES.—Bottineau, N. Dak.—Bids were received on Jan. 3 by J. H. Trimble, Secy. Bd. Drainage Comrs., for constructing ditches necessary for the improvement of Oak Creek and adjoining low lands, about 60,000 cu. yds. Contract was let to O. B. OLSON, Minneapolis, Minn., at 14.95 cts. per cu. yd.

DITCH.—Sioux City, Iowa.—Bids will be received until noon, Jan. 18, by the Supervisors of Woodbury and Monona Counties at the office of E. E. Hosmer, County Audr., at Sioux City, for constructing the West Fork ditch and laterals in Woodbury-Monona Drainage Dist. No. 2, containing about 1,000,000 cu. yds. of excavation.

DITCH.—Madison, Minn.—Bids were received by A. G. Shongren, County Audr., on Dec. 28, for constructing Ditch No. 34. (Estimated cost, $40,414.) Contracts have been awarded as follows: For dredge work to CHARLES SUTCLIFF, of Litchfield, Minn., at 10½ cts. per cu. yd.; plow work, to MADISON DRAINAGE CO., of Madison, at $2,000.

LEVEE.—Charleston, Mo.—Bids were received on Dec. 31 by the Levee Board for constructing eight miles of levee in Scott County (about 175,000 cu. yds.). The contract has been awarded to R. L. LEONARD & CO., 1678 Monroe Ave., Memphis, Tenn., at below 15 cts. per cu. yd. (the estimated price). A. J. Wheeler is Engr., Charleston.

*REBUILDING RUNWAY.—New London, Conn.—Bids were received on Jan. 10, by the Constructing Quartermaster, U. S. A., New London, for rebuilding approximately 190 lin. ft. of runway to wharf at Fort Mansfield. Lowest bidders were T. A. Scott & Co., New London, at $3,350, and the Thames Tow Boat Co., New London, at $3,400.

DREDGE.—Portland, Ore.—Bids were received on Dec. 22 by Maj. J. F. McIndoe, Corps Engrs., U. S. A., for making alterations and additions to U. S. Dredge "Chinook," in connection with work of "improving mouth of Columbia River, Oregon and Washington." Bid of the Marine Iron Works, Portland, at $132,000, was recommended for acceptance.

PIER RECONSTRUCTION.—Boston, Mass.—Permission has been granted the Boston & Albany R. R. Co. by the Harbor and Land Commissioners to proceed with the reconstruction of Pier 5 in East Boston, next to the new pier built for the Leyland line. The pier is to be an open one, 780 ft. long and 205 ft. wide. J. B. Russell is Res. Engr., East Boston, Mass.

RIVER IMPROVEMENT.—Celina, Ohio.—The Commissioners of Mercer County have awarded contracts for the improvement of Beaver Creek and Wabash River as follows: Lower section, seven miles, to R. B. GORDON, Celina, Ohio; upper section, eight miles, to C. H. STERNBERG, Chicago, Ill. This is all dredge work except about 12,000 cu. yds. of rock excavation. Noted on Dec. 9.

REPAIRING FERRYBOATS.—New York, N. Y.—Bids were received as follows on Jan. 7 by the Department of Docks and Ferries on Contract No. 1210, for furnishing all the labor and materials required for repairing the municipal ferryboats or other floating ferry property, and furnishing and delivering supplies therefore: Myers-Payne Co., 130 Front St., $19,081; John W. Sullivan Co., 829 East Ninth St., $25,044.

DITCH.—Forest City, Iowa.—Bids received on Jan. 6 by L. J. Nelson, County Audr., for constructing ditch work, were rejected. New bids will be received until 10 a. m., Jan. 21, for the work, as follows: Drainage Dist. No. 1—176,000 cu. yds. open ditch work and 240 rods of 12-in. tile drains. Drainage Dist. No. 8—32,400 cu. yds. open ditch. Sub-District No. 1, Drainage Dist. No. 3—685 rods of 6, 8, 10 and 12-in. tile drains.

DITCH.—Hamburg, Iowa.—Bids were received on Dec. 30 by G. C. Coleman, County Audr., at Sidney, for excavating the Knox Ditch, near Hamburg. This is dredge work and consists of cutting a ditch about twelve miles long, requiring 807,600 cu. yds. excavation; also for four lateral ditches, aggregating about 52,000 cu. yds. Seth Dean, Engr., Missouri Valley. Contract has been awarded to G. A. McWilliams, Walnut, Ill.

TILE DRAIN.—Hammond, Ill.—Bids were received on Dec. 30 by the Drainage Commissioners of Union Drainage District for construction of a main tile drain and surface drain. There will be 11,773 cu. yds. of excavation. The main line drain will consist of 8,100 ft. of 30-in. tile, 1,500 ft. of 27-in. tile, 2,600 ft. of 24-in. tile, 2,700 ft. of 20-in. tile, and 2,700 ft. of 18-in. tile, inside diameter salt-glazed vitrified tile. Contract has been awarded to JAMES E. DAILY, Jacksonville, Ill.

DRAIN.—Sac City, Iowa.—Bids were received by Harry Baxter, County Audr., on Dec. 23 for construction of a drain in Drainage District No. 29, Sac Township. Contract for construction work was awarded to the TUSCOLA SUPPLY & CONSTRUCTION CO. and ANDERSON & CO., of Webster City, Iowa, at joint bid of $39,000; contract for 18-in. tile and over was let to the CEMENT TILE MFG. CO., Sac City, Iowa, at $18,706, and for 16-in. tile and under, to the AUBURN BRICK & TILE CO., Auburn, Iowa, at $6,625.

CEMENT.—Los Angeles, Cal.—Bids were received on Dec. 24 by Horace B. Ferris, Secy. Board of Public Works, for furnishing 100,000 bbls. Portland cement, also alternative bids for furnishing the said amount of cement with a reservation to the city of the right and option to require the contractor to furnish an additional quantity of cement not exceeding 100,000 bbls. The Henry Crowell Lime & Cement Co., the Riverside Portland Cement Co., and the California Portland Cement Co. each bid $1.85 per bbl. f. o. b. Sangus, Cal., or Mojave, or intermediate points; the Pacific Portland Cement Co. bid $1.90 per bbl.

DRAINAGE DITCHES.—St. Paul, Minn.—The State Drainage Board, S. G. Iverson, State Audr., on Jan. 6 received bids and awarded the following state ditch contracts: State Ditch No. 69, Roseau County, 677,755 cu. yds., awarded to FORRESTAL & FEYEN, St. Paul, at $68,644; State Ditch No. 72, Roseau and Kittson Counties, 687,938 cu. yds., awarded to JOHN KOHLER, Frazee, Minn., at $68,240; State Ditch No. 84, Kittson County, 301,217 cu. yds., awarded to STANDARD DRAINAGE CO., Windom, Minn., at $22,300; State Ditch No. 88, Aitkin County, 599,966 cu. yds., awarded to JOHN KOHLER, Windom, Minn., at $48,589. G. A. Ralph is State Engr.

DREDGING AND QUAY WALLS.—New York, N. Y.—Bids were received as follows by R. C. Hollyday, Ch. of Bureau of Yards and Docks, Navy Dept., Washington, D. C., on Jan. 8, for dredging and opening through Cob Dock and constructing quay walls at the Navy Yard, New York: Phoenix Construction Co., 41 Park Row, New York, (Item 1) $97,897, (Item 2) $89,897; R. G. Packard Co., 130 Pearl St., New York, (1) $112,000, (2) $98,184; Holbrook, Cabot & Rollins Corporation, care Navy Yard, Brooklyn, N. Y., (1) $94,000, (2) $98,000; Conners Brothers Co., 157 Plain St., Lowell, Mass., (1) $116,850, (2) $100,590; The Snare & Triest Co., 143 Liberty St., New York, (1) $84,480, (2) $82,700.

DITCHES.—Council Bluffs, Iowa.—Bids will be received until 10 a. m., Jan. 25, by the Board of Supervisors for constructing a drainage ditch along the course of Keg Creek, in Hadin and Keg Creek Townships, about ten miles in length, to be known as Keg Creek Drainage Ditch No. 6. The work has been divided into sections Nos. 1 to 11, consecutively, and will require about 52,883 cu. yds., 40,363, 36,580, 49,720, 48,958, 42,611, 38,004, 37,081, 36,943, 23,243, and 4,304 cu. yds., respectively, of excavation. R. V. Innes, Audr., Pottawattamie County.

Bids will be received until 10 a. m., Jan. 26, by the County Auditor for constructing Pidgeon Creek Ditch, about 500,000 cu. yds. of excavation. Estimated cost, $64,500. E. E. Spotham, Engr.

REMOVING PIER, ETC.—New York, N. Y.—Bids were received as follows on Jan. 10, by the Department of Docks and Ferries for Contract No. 1199, for furnishing all the labor and materials required for removing and reconstructing pier and extending the pier at the foot of Morton St., North River, Boro. of Manhattan, known as Pier No. 42, North River, and for furnishing and depositing riprap thereat: Henry Steers, 17 Battery Place, $99,768; N. Y. State Construction Co., 80 Broad St., $114,562; Phoenix Construction Co., 13-21 Park Row, $119,897; W. H. Jenks, 59 Pearl St., $134,031; N. E. Construction Co., 225 Fifth Ave., $119,459; Snare & Triest Co., 143 Liberty St., $127,886; Geo. B. Sperin, 90 West St., $109,377; E. DeV. Tompkins, 81 East 125th St., $116,487.

*LUMBER.—Nashville, Tenn.—Bids were received as follows on Dec. 27 by Maj. William M. Harts, Corps Engrs., U. S. A., for furnishing and delivering 883,761 ft. B. M. of long-leaf yellow pine lumber: (a) 535,468 ft. B. M. at Lock 6 (per M. ft. B. M.); (b) 348,293 ft. B. M. at Lock 7 (per M. ft. B. M.); (c) totals: Watkins-Gray Lumber Co., Hattiesburg, Miss., (a) $35.99, (b) $34.97, (c) $31,451; T. H. Johnston & Co., Birmingham, Ala., (a) $31.45, (b) $30.75, (c) $27,550; G. Elias & Bro., Buffalo, N. Y. (a) $34, (b) $33.75, (c) $30,657; Charles Este Co., Philadelphia, Pa., (a) $31.95, (b) $31.95, (c) $28,236; J. K. Joice, 164 Dearborn St., Chicago, Ill., (a) $39.50, (b) $39.50, (c) $34,909; W. C. Rodgers Lumber Co., Hattiesburg, Miss., (a) $33.50, (b) $33.50, (c) $29,606; The Pine Belt Lumber Co., Hattiesburg, Miss., (a) $33, (b) $32.50, (c) $28,990; The Rich Lumber Mfg. Co., Hattiesburg, Miss., (a) $33.50, (b) $32.75, (c) $20,345.

DRAINS.—Boone, Iowa.—Bids will be received until Jan. 19 by the Board of County Supervisors for constructing County Drain No. 36, Secs. 1 to 7, consecutively, requiring in all 16,000 ft. of from 6 to 28-in. tile. Branch A.—Sections 8, 9, 10, in all 4,500 ft. of 15, 16 and 18 tile. Branch B—Sections 11, 12 and 13, in all 5,210 ft. 12, 15 and 11, 12 and 13, in all 5,210 ft. 12, 15 and 18-in. tile. Bids will be received for both clay and cement tile; all material must be delivered on line of drain or f. o. b. Fraser Junction, by Nov. 15, 1910.

Bids will be received same place as above until Jan. 21 for constructing Drain No. 62. Main line—Secs. 1, 2 and 3, requiring in all 6,550 ft. 10, 26 and 32-in. tile. Branch A—Secs. 4 and 5, in all 2,400 ft. 15 and 16-in. tile. Branch B—Secs. 6, 7, and 8, in all 3,604 ft. 10, 12 and 14-in. tile. Branch C—Sec. 9, 649 ft. 8-in. tile. Branch D—Sec. 10, 535 ft. 8-in. tile. Bids will be received for both clay and cement tile, f. o. b. cars Boone, or on line of drain. All material must be delivered by Jan. 1, 1911. M. F. Jones, County Audr.

U. S. POSSESSIONS.

(denotes that this work is advertised in Engineering News.)*

RAIL SECTIONS, ETC.—Panama. — Bids will be received until Jan. 24 by Capt. F. C. Boggs, Corps Engrs., U. S. A., Gen. Purchasing Officer, Isthmian Canal Comn., Washington, D. C., for steel rail sections, steel shafts, manganese steel chute for rock crushing plant, steel cable, etc., as per Circular No. 551.

*VALVE CHAMBERS, ETC. — Panama.—Bids will be received by Capt. F. C. Boggs, Corps Engrs., U. S. A., Washington, D. C., Gen. Pur. Officer, Isthmian Canal Comn., until 10.30 a. m., Feb. 7, for material to form the valve chambers in the main culverts of the canal locks, including structural material, castings, bolts, nuts, washers, etc. Circular No. 552.

For other Proposal Advertisements see pages 51, 52, 53, 54, 56, of Advertisements and Construction News page 20.

REMODELING WATER-WORKS.

Bloomington, Ill.

Sealed proposals will be received by the City of Bloomington, Illinois, until five o'clock P. M., January 25, 1910, for the remodeling of its water works plant, including the reconstruction and remodeling of buildings.

One 6,000,000 or two 4,000,000 gallon pumps, a battery of boilers, stack, main connections and all other work to be done and machinery and appliances to be furnished in and for the said work, according to the plans and specifications therefor now on file in the office of the City Clerk of the City of Bloomington.

Bidders and contractors are advised to consult the ordinance passed by the City Council of the City of Bloomington therefore at its regular meeting held Friday, December 31, 1909.

Copies of plans and specifications may be had upon application to F. H. Lamp, Superintendent of Water and Light, at his office in the City of Bloomington.

All bids must be accompanied with a certified check made payable to R. Max-

LIST OF CONTRACTS PENDING.

Light, Heat and Power Plants.

1-14*Trans. lines, Richmond. Va.....12-30
1-15 Power-house, etc., Stillwater, Okla 1- 6
1-17*Light plant, Macon. Miss.....12-30
1-17 Elec. light plant, Cozad, Neb.... 1-13
1-20 Elec. light system, Fort Williams, Me 12-30
1-21 Remodeling power plant, Washington, D. C. 12-23
1-29 Lighting fixtures, Chicago, Ill... 1- 6
1-29 Elec. light system, Takoma Park, D. C..... 1- 6
2- 2*Conduit, Chicago, Ill..... 1- 6
2- 5*Insul. cable, New London, Conn. 1-13
2-15*Equipment, Winnipeg, Man.....12-30

Bridges.

1-14 Bridge, Cincinnati, Ohio.....12-23
1-14 Viaduct, Portland, Ore.....12-30
1-15 Bridge, Florence, Ariz.....12-16
1-15 Bridge, Dallas, Tex 12-16
1-17 Bridge, West Union, Ohio.....12-30
1-17 Bridge, Los Angeles, Cal..... 1-13
1-17 Footbridge, Boston, Mass..... 1-13
1-18 Bridge work, Toronto, Ont..... 1-13
1-18 Bridge, Wagoner, Okla.....12-30
1-18*Superstructure, Winnipeg, Man..12-16
1-18*Bridge, etc., Philadelphia, Pa.... 1- 6
1-20 Bridge, San Antonio, Tex.....12-30
1-21*Bridges, Jacksonville, Fla..... 1- 6
1-22 Bridge, Outlook, Sask..... 1-13
1-24*Bridge, Monroeville, Ohio.....12-30
1-25 Bridge, Whiterocks, Utah..... 1-13
1-28 Bridge work, Columbus, Ohio.... 1-13

Buildings.

1-14 Post-office, Emporia, Kan 21-23
1-15*Buildings, Ft. Sill, Okla.....12-23
1-15 Hospital, etc., Elmira, N. Y..... 1- 6
1-15 Buildings, etc., Stillwater, Okla. 1-13
1-17 State house, Dover, Del 12-23
1-17*Post-office, Henderson, N. C....12-16
1-17 Schools, New York 1- 6
1-18 Alterations, New York..... 1-13
1-18 Painting, New York..... 1-13
2-19 Quarters, Bremerton, Wash..... 1-13
1-25*Post-office, Pawtucket, R. I.....12-23
1-26*Building, Ft. Monroe, Va.....12-30
1-26*Cottages, Kings Park, N. Y..... 1- 6
1-27 Stable, Vancouver, Wash..... 1- 6
1-31*Post-office, Goldsboro, N. C.....12-30
1-31 Barracks, Philadelphia, Pa..... 1-13
1-31 Jail, Puente, Cal..... 1-13
2- 1 Cottages, Storrs, Conn..... 1-13
2- 1 Plans, New Westminster, B. C... 1-13
2- 7 Quarters, Hot Springs, Ark..... 1-13
2- 7 Prison, Stillwater, Minn.....12-30
2- 8 Post-office, Meridian, Miss..... 1- 6
2-10*Post-office, Lynchburg, Va.....12-23
2-14 Post-office, Lead, S. Dak 12-23
2-15 Post-office, Emporia, Kan..... 1-13
2-16 Refrig. mach., Ft. Bayard, N. Mex .....(Mfg. Pl.) 1- 6
2-17*Post-office, Denver, Colo..... 1- 6
2-24 Post-office, Rock Island, Ill.....12-30
3- 1 Post-office, Hot Springs, Ark.... 1- 6

Water-Works.

1-14 Water mains, New Brighton, N.Y. 1-13
1-15 Head-gate, etc., Lamar, Colo..... 1-13
1-15 Pumps, Stratford, Ont.....12-30
1-17*Irrigation tunnel, Porto Rico 12-30
1-17 Water-works, Ralston, Okla..... 1- 6
1-18*Siphons, etc., New York.....12-30
1-18 Sluice-gates, New York 12-30
1-18 C.-I. pipe, etc., Las Animas, Colo. 1-13
1-20 Boilers, Gallipolis, Ohio..... 1-13
1-22*Wells, etc., Jackson, Miss.....12-16
1-21 Pumping station, etc., Ft. Mason, Cal 1- 6
1-25*Siphon, New York..... 1- 6
1-25*Water-works, Bloomington, Ill... 1-13
1-26 Water-works, Porteles, N. Mex.. 1-13
1-28 Standpipe, etc., Weatherford, Okla 1-13
1-28 Valves, etc., Minneapolis, Minn.. 1-13
2- 2 Dam, etc., Dallas, Tex..... 1-13
2-15 Water-works, Midland, Tex..... 1- 6

Sewers.

1-14*Sewers, Denver, Colo. 12-23
1-14 Drain, Nevada, Iowa..... 1-13
1-15 Sewer, Collinsville, Ill..... 1- 6
1-17 Sewer, Montgomery, Ala..... 1- 6
1-17 Sewers, St. Paul, Minn..... 1-13
1-18 Sewer system, North Pelham, N. Y 1- 6
1-18*Sewer, Philadelphia, Pa. 1- 6
1-19 Sewerage works, Prince Rupert, B. C. 12-23
1-24 Sewers, Provo City, Utah..... 1-13
1-24 Sewer system, Santa Clara, Cal.. 1-13
1-24*Sewers, Walters, Okla..... 1-13
1-24*Pipe sewers, Charleston, S. C.... 1-13
1-26 Sewers, Boone, Iowa..... 1- 6
2- 1 Sed. basins, Ardmore, Okla..... 1- 6
2- 2 Conduit, Chicago, Ill..... 1-13
2- 3*Sewage pump station, El Paso, Tex 1-13
2- 9*Sewers, Baltimore, Md..... 1-13
2-15*Sewer outlet, etc., Toronto, Ont..12-23
2-16*Sewer system, Lawton, Okla. 12-30

Streets and Roads.

1-17 Surfacing, St. Paul, Minn..... 1-13
1-17 Paving, New York..... 1-13
1-18 Repairing pvt., New York..... 1-13
1-19*Paving, Birmingham, Ala..... 1- 6
1-25 Roads, Anderson, Ind..... 1-13
1-29 Paving, Charleston, S. C. 1-13
3- 1 Driveways, etc., Moline, Ill..... 1-13
3-15 Roads, Gordon, Ala..... 1-13

Miscellaneous.

1-14 Drain, Nevada, Iowa..... 1-13
1-15 Marine railway, Key West, Fla..12-16
1-15 Tile drain, Boone, Iowa.....12-23
1-18 Dry dock, New York 10-21
1-18 Timber, etc., Ottawa, Ont.....12-30
1-18 Ditch, Sioux City, Iowa..... 1-13
1-19 Drain, Boone, Iowa..... 1-13
1-20*Levee, ditches, Carrollton, Ill....12-30
1-21 Ditch, Forest City, Iowa..... 1-13
1-21 Drain, Boone, Iowa..... 1-13
1-22 Ditch, Fort Wayne, Ind..... 1-13
1-22 Ditches, Grand Falls, Tex.....12-30
1-22 Levee embankment, etc., Caldwell, Tex 12-30
1-24 Rail sections, etc., Panama..... 1-13
1-25 Ditch, Council Bluffs, Iowa..... 1-13
1-26 Ditch, Council Bluffs, Iowa..... 1-13
1-27 Jetties, dikes, New York 12-23
1-29 Railing, Boston, Mass..... 1-13
2- 1 Monuments, Ottawa, Ont. 10-21
2- 3 Ditch, Fort Dodge, Iowa 1- 6
2- 3 Ditch, Hartford City, Ind..... 1-13
2- 5 Ditch, Smartville, Cal. 1-13
2- 7*Valve chambers, etc., Panama.. 1-13
2-15 Torpedo boats, Washington, D. C.12-23
4-30 Ditch, Olivia, Minn.....12-23

Examinations.

1-19 Asst. Chemist, Washington, D.C.12-23
1-19 Agricultural Asst., Wash., D. C.12-23
1-19 Engr. in Wood Preservation, Denver, Colo. 12-23
1-22 Water analyst, Albany, N. Y.... 1- 6
1-22 Steam Engr., Albany, N. Y. 1- 6
1-22 Director of Laboratories, Albany, N. Y. 1- 6
1-22 Deputy Factory Inspector, Albany, N. Y. 1- 6
1-22 Bridge Draftsman, Albany, N.Y.. 1- 6
1-22 Bridge Designer, Albany, N. Y.. 1- 6
1-22 Asst. Superv. of Equip., Albany, N. Y. 1- 6
1-22 Asst. Bacterioligist, Albany, N.Y. 1- 6
1-26 Draftsman, Philadelphia, Pa. 1- 6
2- 2 Engr. and Plumber, Wash., D C. 1- 6

Plans and Specifications on File.

The following plans (P.) and Specifications (S.) are on file (for reference only unless otherwise noted) at office of The Engineering News Publishing Co., 220 Broadway, New York.

Bids close.	Work.	See issue.
1-14*	Trans. lines, Richmond, Va..... (P. & S.)	12-30
1-14	Viaduct, Portland, Ore..(P.& S.)	12-30
1-15	Pumps, Stratford, Ont.....(S.)	12-30
1-17*	Light plant, Macon, Miss....(S.)	1- 6
1-17*	Irrigation, Porto Rico...(P.& S.)	10-21
1-18*	Superstructure, Winnipeg, Man.. .....(P. & S.)	12-10
1-29	Railing, Boston, Mass.....(S)	1-13
1-29	Paving, Charleston, S. C....(S.)	1-13
2-19	Quarters, Bremerton, Wash..(S.)	1-13

ton, City Comptroller of the City of Bloomington for five per cent. of the amount of the bid, as an evidence of good faith, the same to be forfeited to the City of Bloomington upon a failure of the bidder to accept contract upon any bid accepted.

All bids should be addressed to R. Maxton, City Comptroller of the City of Bloomington, Illinois.

The City of Bloomington reserves the right to reject any and all bids.

Dated at the City of Bloomington, Illinois, this 5th day of January, 1910.

H. W. ULBRICH,
E. E. JONES,
J. C. MEANS,
Water Board of the City of Bloomington.

ASPHALT PAVING PLANT.

Spokane, Wash.

Sealed proposals, in duplicate, will be received by the Board of Public Works of the City of Spokane, Washington, until 2 o'clock p. m., February 1st, 1910, for the furnishing and erecting of a Municipal Asphalt Paving Plant, for the City of Spokane, one copy addressed to the Mayor of the City, and one copy to the Board of Public Works; the copy addressed to the Board of Public Works shall be accompanied by a certified check for five per cent. of the amount of the bid submitted. Specifications for same, together with instructions to bidders, are now on file in the office of the City Engineer.

This plant is to be of the semi-portable, combination type. Bids must also include, separately, a tender to furnish the tools, rollers and other street appliances necessary for a plant of this size, as indicated in the specifications.

Bidders will be expected to furnish full detail plans for the plant complete, upon which they bid.

Bids will not be received from other than those who have been engaged in this class of work, of reputable and well-known standing.

The Board reserves the right to reject any and all bids submitted.

By order of the Board of Public Works.
GEO. W. ARMSTRONG,
Secretary.

PUMPING STATION.

DES MOINES COUNTY DRAINAGE DISTRICT NO. 1.

Burlington, Iowa.

Sealed bids will be received by the Supervisors of Des Moines County at Burlington, Iowa, until 2.00 o'clock P. M., February 2d, for furnishing and erecting a complete pumping station, including the buildings and machinery. A considerable portion of the building materials will have been delivered at the pumping station site.

The pumping plant will be used for drainage of agricultural lands; shall have a capacity of 525 cubic feet per second against a head of 12½ feet, exclusive of friction.

The plant will consist of two or three centrifugal pumps each direct connected to a cross or tandem compound condensing Corliss or four-valve steam engine; three water tube boilers for a working pressure of 150 lbs. per square inch, equipped with superheaters for a maximum working temperature of 475°; one small vertical auxiliary boiler for working pressure of 100 lbs.; shaking grates; induced draft; duplicate feed water system; open heater; electric lighting system for the plant and a coal tramway electrically operated.

For further information, plans and specifications address the HARMAN ENGINEERING CO., 120 Fredonia Ave., Peoria, Ill.

SEWER.

Boone, Ia.

Sealed proposals will be received by the City Clerk of the City of Boone, Iowa, until 7.30 P. M., Jan. 26, 1910, for the construction of the Fifth Ward sewer. The work embraces approximately nine and one-third miles of vitrified pipe sewer from 8 to 15 ins., together with all appurtenances. Certified check $1,500 with bid. Bond will be $15,000. Work to be completed by Nov. 15, 1910. Plans and specifications on file in the office of K. C. Kastberg, City Engineer and Otto Hile, City Clerk.

Plans and specifications for this work are on file at the office of Engineering News, 1636 Monadnock Block, Chicago, Ill.

PAVING.

OFFICE OF BOARD OF CONTROL.
Norfolk, Va., Jan. 10, 1910.

Sealed proposals will be received by the Board of Control at its office in the City of Norfolk, Va., until 12 o'clock noon on the eighth day of February, 1910, for regulating and repaving with some smooth material, parts of Granby and Chapel Streets in the said City.

Bids must be made for each street separately.

Specifications with all other information may be obtained on application to the City Engineer, Norfolk, Va.

Certified checks for ten per cent. of the amount bid, must accompany each separate proposal, under the conditions set forth in "Instructions to Bidders."

The right to reject any or all bids is reserved by the Board of Control.

THE BOARD OF CONTROL,
Norfolk, Va.
W. T. BROOKE.
City Engineer.

CHANGE OF DATE

CITY ENGINEER'S OFFICE, Charleston, S. C., January 6th, 1910.—The time for opening Sewer Proposals for Contracts "A" and "B" at Charleston, S. C., has been extended to 12 M., January 24th, 1910.

J. H. DINGLE,
City Engineer.

CAST-IRON PIPE

Bangkok, Siam.

The Minister of Local Government, Bangkok, Siam, is prepared to receive tenders for the Supply of Cast Iron Pipes and accessories for the Water Supply of the City of Bangkok.

Specifications with forms of Tender and Contract may be obtained on application to Secretary of the Siamese Legation, Washington, D. C., on payment of $1.25.

January 6, 1910.

Situations Wanted

Mechanical and Electrical Engineers.

ELECTRICAL ENGINEER, with 12 years' experience in power plant construction and operation, desires position with Eastern engineering firm or construction company; familiar with concrete construction, handling heavy materials, use surveying and drafting instruments. Experienced in steam and hydraulic work. Prefer field work on hydraulic proposition; six weeks' notice required. Address "E. B. 2," Engineering News, New York. 2-2t

Civil Engineers.

YOUNG MAN, graduate civil engineer, wishes to enter established firm; seven years' experience as instrumentman, foreman, assistant superintendent, railroad and building construction, stenographer, office manager; references. Address "C. B. 2," Engineering News, New York. 2-2t

ENGINEER and superintendent, technical man, six years in charge of field operations on heavy construction work; good estimator; will consider proposition for other connections where successful results will be recognized by advancement. Address "F. B. 2," Engineering News, New York. 2-6t

GRADUATE of Princeton University, having specialized since graduation in concrete construction and hydraulic work, wishes to enter established firm with view to working up. Address "G. B. 2," Engineering News, New York. 2-tf

POSITION DESIRED by civil engineer (32); 8 years' experience on railroad work; 4 years resident engineer on heavy construction, involving two important viaducts of length exceeding 1,000 feet each and two tunnels, one nearly one mile long. One year on maintenance track work. References, including present employer. Address "H. C. 2," Engineering News, New York. 2-3t

GRADUATE CIVIL ENGINEER (28), five years on highways, sewerage and waterworks, office and field; good draftsman and estimator; now free to go anywhere. Address "M. C. 2," Engineering News, New York. 2-1t

Bridge and Structural Engineers.

GRADUATE ENGINEER, live man, 17 years' experience building lines, from shop to estimator and engineer in charge. Address "K. A. 1," Engineering News, New York. 2-1t

Surveyors.

FARM SURVEYING wanted. Several years' experience in surveying; excellent draftsman. Address "I. C. 2," Engineering News, New York. 2-4t

Draftsmen.

DRAFTSMAN power house, design piping and industrial buildings and warehouses. Address "Z. B. 2," Engineering News, New York. 2-1t

EXPERIENCED structural draftsman and checker; also mechanical work; position in New York. Address "D. B. 2," Engineering News, New York. 2-1t

MECHANICAL DRAFTSMAN, general design, 10 years' experience; moderate salary. Address "X. B. 2," Engineering News, New York. 2-1t

DRAFTSMAN JUNIOR, structural tracer; 2 years 'experience; coal handling machinery preferred. Address "F. 17," Engineering News, New York. 2-1t

Superintendents, Misc., etc.

AMERICAN (24), college graduate, scientific course, three years' experience in contracting work, desires position with civil engineer or contractor; excellent references. Address "R. B. 2," Engineering News, New York. 2-1t

TECHNICAL GRADUATE (26) desires position with N. Y. contractor as engineer, superintendent; five years' experience; extensive surveying, constructing heavy bridges, heavy foundations and municipal work. Address "W. B. 2," Engineering News, New York. 2-12t

ENGINEER, ten years' experience on pile and timber docks, trestles, concrete and municipal work; can make surveys, estimates or superintend construction; references. Address 1421 RIDGEWOOD AVE., Lakewood, Ohio. 2-3t

CONTRACTOR'S SUPERINTENDENT or foreman; can organize force and construct anything in reinforced concrete; 18 years' experience; can furnish references. Address "G. A. 2," Engineering News, New York. 2-1t

Situations Open

WE REQUIRE a competent foreman for our foundry near Cincinnati, capacity about 8 tons daily, producing agricultural machinery and some loam castings. The successful applicant must have had previous experience as a foundry foreman, and in applying should state age, previous experience, where at present employed and salary desired. Address "W. A. 2," Engineering News, New York. 2-1t

CHIEF DRAFTSMAN to take charge of designing water-works and sewers in Middle West. Must be technical graduate having at least four years' experience on similar work. Permanent position at $175.00 per month for right man if he proves himself capable. Send references and detail statement of experience. Address "M. A. 2," Engineering News, New York. 2-1t

A MACHINE SHOP FOREMAN can secure a good position by advising the undersigned. We require the applicant to be a first-class mechanic, to have had previous experience as a foreman and to be young enough to adapt himself to the particular requirements of our business, located in Cincinnati. When applying, state fully age, previous experience, where at present employed and salary desired. Address "S. A. 2," Engineering News, New York. 2-1t

WANTED—High grade sewer pipe salesman for New York and vicinity, by manufacturer. Address A. A. 2," Engineering News, New York. 2-3t

SALESMAN.—A traveling salesman who is now selling the machine hardware or railroad supply trade to carry a high grade bearing metal (Babbitt) as a side line, on liberal commission basis. Address, with full particulars, LAKEWOOD METAL CO., Box 182, Lakewood, N. J. 2-tf

WANTED—Technical graduate, well grounded in mathematics, who understands calculating with logarithms and by slide rule, to assist in statistical tabulations and computations. Salary $75 month to start. Address "L. C. 2," Engineering News, New York. 2-1t

WANTED—Draftsman experienced in mechanical engineering and steam piping, for work in Paterson, N. J. Address "O. C. 2," Engineering News, New York. 2-1t

WANTED—High-grade salesman by prominent firm of heating and ventilating contractors of New York City; must have experience and acquaintance with local architects and contractors. Address, giving full particulars, references and salary desired, "K. C. 2," Engineering News, New York. 2-2t

Miscellaneous Wants

WANTED—Second-hand transit, cheap. Address "B. B. 2," Engineering News, New York. 2-1t

EXPERIENCED civil engineer, office, New York, wishes agency for contractors' machinery or supplies. Address "S. B. 2," Engineering News, New York. 2-2t

RODMAN, transitman, topographical draftsman, city examination next month; prepared by expert city engineer. Address "A. B. 2," Engineering News, New York. 2-1t

TWO STRUCTURAL steel and reinforced concrete designers and detailers, New York City; desire work for spare time. Address "W. 1," Engineering News, New York. 2-1t

FOR SALE

ENGINES AND BOILERS

At Houston, Texas.

1 18 x 36 Heavy-Duty Type Bates Corliss Engine.
1 250-HP. Heine Water-Tube Boiler.
1 300-HP. Bates Heater.
Practically new, and available for immediate delivery. Special low prices to close.

At Chickasha, Oklahoma.

1 14 x 36 Murray Corliss.

At Cleveland, Ohio.

1 22 x 48 Heavy-Duty Allis Corliss Engine, right hand.

CLEVELAND BELTING AND MACHINERY COMPANY
Cleveland, Ohio. 1-2t

FOR SALE NEAR CHICAGO.

$8,000.00 buys complete

Gates Crushing Plant

No. 8 and No. 4 Style "D" two hoists, including buildings and bins. With this outfit are 32 end dump pit cars, 1 large pit pump, 2 portable boilers, superintendent's cottage, etc. Plant has been run about four years and is in first-class condition. The best bargain in the country for the money. Address "N. 2," Engineering News, 1636 Monadnock Block, Chicago. 2-1t

GAS ENGINE

FOR SALE.

One 35-horse-power Three-Cylinder Vertical Fairbanks-Morse Gas Engine, complete, with two ignitor magnetos, three extra ignitors, complete automatic oiling system with filter, all in best running condition.

SIGHT FEED OIL PUMP CO.,
2-1t Milwaukee, Wis.

FOR SALE.

TRANSIT

Gurley Reconnoissance, Cat. No. 100.
Perfect Condition.
3½" Vert. circle. 5" Hor. silver grad. Stadia wires, variation ring. 3½" needle. Extension tripod. Weight with tripod, 15 lbs. Address
M. Y. FERRIS,
2-1t Ticonderoga, N. Y.

Structural Plant

FOR SALE.

Modern, in middle west, capacity 1,000 tons per month, or will sell steel building (136 × 300'), tools and machinery as a whole for removal. Machinery latest, independent motor driven of best makers. For full particulars, address
H. W. KLARE, 2-4t
1270 Old Colony Bldg., Chicago.

FOR SALE.

A Stone Crushing Plant

in running order, comprising
One No. 7½ McCully Crusher.
One No. 5 McCully Crusher.
With Engine and Boiler, etc. Complete. Apply to
NAUGHTON COMPANY & ARTHUR McMULLEN,
161 Third St., Long Island City, New York.
2-1t

FOR SALE.

1 slightly used 10-ton Buffalo-Pitts

ROAD ROLLER

in good condition at a liberal discount for cash. For information and specifications, apply to
MOSES SHIELDS STONE COMPANY,
2-4t 906 Mears Building, Scranton, Pa.

Sand Blast Plant

FOR SALE—One complete, portable Sand Blast Plant, cornice hooks, swinging scaffold, automatic dryer, outfit used less than 3 months; will sell for ⅓ of original cost with guarantee. Address "P. B. 2," Engineering News, New York. 2-2t

FOR SALE.—25 800 C. P. Gasoline Arc Lights, manufactured by Acorn Brass Co., Style No. 18, H. P. These lights are separate units all self contained. Reservoir holds 5 quarts. Burns 12 hours. The light is produced by the gasoline vapor burning on incandescent mantle. Not affected by wind or weather. Weight of each, 10 lbs. These lights were used only during week of Lake Champlain Tercentenary Celebration. Perfect condition. Address M. Y. FERRIS, Ticonderoga, N. Y. 2-1t

Reinhardt's
TECHNIC OF MECHANICAL DRAFTING
Shows *how* to do it right Price, $1.00